NADJA R. GING-JEHLI

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(Swiss citizen & Permanent US resident)

RESEARCH INTERESTS

- Research Fields: specialized in Computational Psychiatry, Cognitive Neuroscience, and Decision Sciences, targeting the neural, cognitive, and social-cognitive underpinnings of psychiatric conditions.
- Foundational Focus: studying the interplay between biological, cognitive, and environmental factors on enhancing mental flexibility and behavioral adaptability - fundamental elements of resilience - through the lens of attention, metacognition, and feedback-driven learning across contexts and throughout time.
- Clinical Focus: using computational tools to improve diagnostics and treatments for ADHD, mood disorders, and related conditions, with a focus on individual differences and transdiagnostic features.
- Translational Focus: developing accessible digital mental health tools for personalized, self-guided care, translating computational insights into practical applications.
- Leadership & Collaboration: leading interdisciplinary teams to innovate in computational psychiatry and cognitive neuroscience, with a track record of integrating insights across various research fields.

EXPERTISE OVERVIEW

- Leading computational modeling cores on inter-institutional Conte Centers for Depression and OCD.
- Leading self-funded neurocognitive study using interactive gaming to assess ADHD and mood dysregulation, focusing on mental variability across contexts and over time.
- Bridging clinical research with neuroscience, mathematical psychology, and experimental economics to produce integrative testing across cognitive and social-cognitive domains.
- Proficient in combining EEG and eye-tracking with advanced modeling techniques and experiments.
- Versatile in analyzing experimental data across clinical and non-clinical settings and across species.
- Deep expertise in statistics (Bayesian & Frequentist), machine learning, and modeling across analytical levels.
- Entrepreneurially inclined with a decade of industry experience in finance and consulting.
- Self-driven first-generation academic and college student.

ACADEMIC BACKGROUND

Postdoctoral Researcher, *Brown University*   2022 – present
Providence, RI USA

Computational Psychiatry & Cognitive and Social-Cognitive Neuroscience (Main Mentor: Michael J. Frank)

PhD in Psychology and Neuroscience, *The Ohio State University*   2019 – 2022
with Specialization: model-based cognitive neuroscience
Columbus, OH USA

Dissertation: Characterizing adult attention-deficit hyperactivity disorder (ADHD) with a
multidisciplinary computational approach including novel neurocognitive testing and physiological measures.
Advisor committee: Patricia Van Zandt, L. Eugene Arnold, Brandon Turner, Jay Myung

Master of Arts in Psychology, *The Ohio State University*   2017 – 2019
with Specialization: cognitive psychology and neuroscience
Columbus, OH USA

Master's thesis: On the implementation of computational psychiatry within the framework
of cognitive psychology and neuroscience.
Advisor committee: Patricia Van Zandt, Roger Ratcliff, L. Eugene Arnold

Additional coursework in Psychology, *University of Zurich*   2016 – 2017
Zurich, Switzerland

Biological Psychology I & II, Neuroeconomics, Social Psychology I & II
(Neuroscience, Immunology, Genetics, Epigenetics, Endocrinology)

Master of Arts in Economics, *University of Zurich*   2015 – 2017
with Minor: behavioral and experimental economics
Zurich Switzerland

Graduation with honors: magna cum laude
Master's thesis: Situational determinants of social preferences.
Advisor: Ernst Fehr

Additional coursework in Mathematics, *Swiss Federal Institute of Technology (ETH)* 2014 – 2015
Zurich Switzerland

Real Calculus I & II, Linear Algebra I & II

Bachelor of Arts in Economics, *University of Zurich* 2012 – 2014
Zurich, Switzerland

Graduation with honors: magna cum laude
Bachelor's thesis: Generosity across economic contexts.
Advisor: Roberto A. Weber

Bachelor of Science in Business Administration, *Zurich University of Applied Sciences (ZHAW)* 2008 – 2012
Winterthur, Switzerland

Graduation with honors: Dean's List Award in recognition of outstanding academic achievement
Awarded with the Rieter-Award for the best Bachelor Thesis in 2012:
"How corporate governance of a consultancy can benefit from findings in
behavioral economics – How implicit incentive signals influence intrinsic motivation"

Industrial Psychology with Certificate from KLZ, *Commercial Learning School (KLZ)* 2007 – 2008
Zurich, Switzerland

Human Resources Advisor with Certificate, *AKAD School of Business* 2006 - 2007
Zurich, Switzerland

Apprenticeship with Vocational Baccalaureate Diploma, *Graubündner Kantonalbank* 2004 – 2007
Chur, Switzerland

PROFESSIONAL EXPERIENCE

Brown University, Providence, RI USA 09/2022 – present
Postdoctoral Researcher in Computational Psychiatry & Cognitive Neuroscience
- Leading computational modeling core on multiple Conte Center grants on Depression, Bipolar, and OCD
- Piloting a self-developed computer platform for assessments across cognitive & social-cognitive domains
- Developing a unified modeling approach across behavioral and neurocomputational models
- Directing several independent research projects in the domain of computational psychiatry across disorders and species
- Studying mental trade-offs between attention, cognitive flexibility, and feedback-driven learning

BGBehavior LLC, Providence, RI USA 02/2023 – present
Co-founder
- Consulting in computational modeling, statistics, and cognitive psychology

The Ohio State University, Columbus, OH USA 08/2017 – 08/2022
PhD in Psychology and Neuroscience
- Designing, programming, and piloting multiple cognitive and social-cognitive tasks to study cognitive control, cognitive flexibility, and social-cognitive behavior
- Collecting and analyzing behavioral, electroencephalographic (EEG) and eye-tracking data
- Class project: collecting and analyzing functional magnetic resonance imaging data (fMRI)
- Experience in administering laboratory tasks to clinical and non-clinical populations (adults and children)
- Experience in computational modeling and machine learning
    o Applying machine learning algorithms and sequential sampling models to link behavioral model parameters from neurocognitive tests with EEG data and eye-tracking data (gaze and pupil measures)
    o Analyzing experimental data (e.g., task performance on go/no-go tasks, perceptual discrimination tasks, task-switch paradigms, economic choice tasks) from non-clinical and clinical studies using diffusion decision models, race diffusion models, ballistic accumulator models, ex-Gaussian distribution models, and reinforcement learning models
    o Programming of neural networks to understand potential different causes of autism spectrum disorders
- Experience in clinical research
    o Conduct own clinical study (from IRB submission to publication as PI)

- o Assisting in a randomized clinical trial for neurofeedback treatment for childhood attention-deficit hyperactivity disorder
- o Performing biostatistical analyses (e.g., linear mixed modeling, moderator and mediator analyses) for various non-pharmacological interventions for ADHD and for a pharmacological intervention for autism spectrum disorder
- o Independently conducting semi-structured clinical interviews (K-SADS) after being trained by medical doctors
- o Independently collecting and evaluating responses on various clinical questionnaires after being trained by clinicians and medical doctors

University of Zurich, (20-60% employment)   07/2013 – 01/2017
Research Assistant, Zurich, Switzerland

Chair of Behavioral Economics (Prof. Roberto Weber), Department of Economics

- Directing several independent research projects
- Analyzing experimental and field data with STATA
- Programming experiments with "z-Tree"
- Assisting in designing and conducting experiments at the Economics Laboratory
- Conducting literature research, surveys, field and online studies

Swiss Federal Institute of Technology, ETH (20-40% employment)   11/2013 – 07/2017
Laboratory Assistant, Zurich, Switzerland

Decision Science Laboratory, Department D-GESS, Behavioral Studies

- Responsible for checking experiments programmed with z-Tree
- Writing codes for PowerShell to run experiments
- Independently conducting laboratory experiments
- Assistance in conducting laboratory experiments
- Helping others with programming experiments with "z-Tree"

Statistical Bureau, City of Zurich (60% employment)
Internship as Research Assistant, Zurich, Switzerland   07/2013 – 09/2013
- Data collection, preparation, and statistical analysis (SAS & Excel)

Fehr Advice & Partners AG (50-100% employment)   03/2012 – 02/2013
Chief of Staff & Consultant, Zurich, Switzerland
- Junior Consultant in several client projects
- supervision of 4 team assistants

UBS AG (100% employment)   07/2007 – 02/2012
Client Advisor Assistant, Executives/Entrepreneurs Private Banking, Zurich, Switzerland 03/2011 – 02/2012
- Worked closely with specialists from Investment Banking
- supported Client Advisors
Individual Client Advisor, Rüschlikon, Switzerland   09/2008 – 02/2011
- Managed own client book (business volume approx. CHF 140M)
- Deputy for branch manager & trained apprentices in practice and in financial mathematics
General Client Advisor, Zollikerberg, Switzerland   07/2007 – 08/2008

Graubündner Kantonalbank (100% employment)   08/2004 – 06/2007
Apprenticeship with Vocational Maturity Diploma, Chur, Switzerland

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P U B L I C A T I O N S

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Published Articles
*Mentees

1. Ging-Jehli, N.R., Kuhn, M., Blank, J.M., Chanthrakumar, P.*, Steinberger, D.C., Yu, Z., Herrington, T.D., Dillon, D.G., Pizzagalli, D.A., Frank, M.J. (2024). Cognitive signatures of depression, anhedonia, and affective states using computational modeling and neurocognitive testing. _Biological Psychiatry: Cognitive Neuroscience and Neuroimaging._

2. <u>Ging-Jehli, N.R.</u>, Arnold, L.E., Van Zandt, T. (2023). Cognitive & attentional mechanisms of cooperation – with implications for attention-deficit hyperactivity disorder and cognitive neuroscience. *Cognitive, Affective, & Behavioral Neuroscience.*

3. <u>Ging-Jehli, N.R.</u>, Painter, Q.A.*, Kraemer, H., Roley-Roberts, M.E., Panchyshyn, C.*, deBeus, R., Arnold, L.E. (2023). A Diffusion Decision Model Analysis of The Cognitive Effects of Neurofeedback for ADHD. *Neuropsychology.*

4. <u>Ging-Jehli, N.R.</u>, Kraemer, H., Arnold, L.E., Roley-Roberts, M.E., deBeus, R. (2023). Latent cognitive components moderate neurofeedback response in ADHD – A computational modeling analysis of a randomized clinical trial. *Journal of Clinical and Experimental Neuropsychology.*

5. Roley-Robert, M.E., Bergman, R., Pan, X., Tan, Y., Hendrix, K., deBeus, R., Kerson, C., Arns, M., <u>Ging-Jehli, N.R.</u>, Connor, S., Shrader, C., Arnold, L.E. (2022). Comorbid anxiety and disruptive behavior disorders but not ADHD presentation moderate neurofeedback effect in children with ADHD. *Applied Psychophysiology and Biofeedback.*

6. <u>Ging-Jehli, N.R.</u>, Arnold, L.E., Roley-Roberts, M.E., deBeus, R. (2022). Characterizing underlying cognitive components of ADHD presentations and co-morbid diagnoses – A diffusion decision model analysis. *Journal of Attention Disorders.*

7. <u>Ging-Jehli, N.R.</u>, Ratcliff, R., Arnold, L.E. (2021). Improving Neurocognitive Testing using Computational Psychiatry – A Systematic Review for ADHD. *Psychological Bulletin.*

8. <u>Ging-Jehli, N.R.</u>, Ratcliff, R. (2020). Effects of aging in a task-switch paradigm with the diffusion decision model. *Journal of Psychology and Aging.*

9. <u>Ging-Jehli, N.R.</u>, Deepa, M., Hollway J., Hurt, E., Moone, S., Arnold, L.E. (2020). Exploring cholesterol supplementation for autistic symptoms in Children with Low Cholesterol. *Journal of Developmental and Physical Disabilities.*

10. <u>Ging-Jehli, N.R.</u>, Schneider, F.H., Weber, R.A. (2020). On self-serving strategic beliefs. *Journal of Games and Economic Behavior.*

11. Davis, A. L., <u>Jehli, N.R.</u>, Miller, J.H., & Weber, R.A. (2015). *Generosity across contexts.* CESifo Working Paper, No. 5272, Center for Economic Studies and ifo Institute (CESifo), Munich.

<u>*Articles Under Review*</u>

12. <u>Ging-Jehli, N.R.</u>, Arnold, L.E., Sellers J.*, Van Zandt, T. (submitted). Broader visual processing and distinct pupil dynamics facilitate resolving perceptual conflict and compensate for ADHD distractibility.

13. <u>Ging-Jehli, N.R.</u>, Cavanagh, J.F., Ahn, M., Segar, D.J., Asaad, W.F., Frank, M.J. (submitted). Distinct basal ganglia decision dynamics under conflict and uncertainty.

14. Strittmatter, Y., Spitzer, W.H., <u>Ging-Jehli, N.R.</u>, Musslick, S. (submitted). A jsPsych Touchscreen Extension for Behavioral Research on Touch-Enabled Interfaces.

<u>*Published Conference Abstracts*</u>

1. <u>Ging-Jehli, N. R.</u> (2023). Utility of Computational Phenotyping for Psychiatric Disorders With Low Essentiality: Empirical Findings for Attention-Deficit/Hyperactivity Disorder and Depressive Disorders. In *Neuropsychopharmacology* (Vol. 48, pp. 30-30).

2. <u>Ging-Jehli, N. R.</u>, & Arnold, L. E. (2023). 13.3 Cognitive Role of EEG Theta/Beta-Ratio for Behavior: Accounting for ADHD Heterogeneity. *Journal of the American Academy of Child & Adolescent Psychiatry*, 62(10), S344.

3. <u>Ging-Jehli, N.</u>, Arnold, L. E., Sellers, J.*, & Van Zandt, T. (2022). 30.3 Eye-Tracking, Gaze, and Pupil Dynamics in ADHD: Biofeedback Possibilities During Novel Perceptual Conflict Task. *Journal of the American Academy of Child & Adolescent Psychiatry*, *61*(10), S323.

4. Painter, Q. A.*, <u>Ging-Jehli, N.</u>, Arnold, L. E., Roley-Roberts, M. E., & Pan, X. J. (2022). 30.4 The Effect of ASD Features on Neurocognitive Change With Neurofeedback in ADHD: New ICAN Data. *Journal of the American Academy of Child & Adolescent Psychiatry*, *61*(10), S323.

5. Roley-Roberts, M., Kerson, C., <u>Ging-Jehli, N.</u>, & Pan, X. (2021). 30.2 Moderating Effects of Psychiatric Diagnoses on Neurofeedback for ADHD at 25-month Follow-up. *Journal of the American Academy of Child & Adolescent Psychiatry*, *60*(10), S304.

6. Ging-Jehli, N., Arnold, L. E., deBeus, R., Roley-Roberts, M., & Kraemer, H. (2021). 30.4 Underlying Cognitive Components Respond to Neurofeedback For ADHD And Moderate Clinical Outcome. *Journal of the American Academy of Child & Adolescent Psychiatry*, *60*(10), S305.
7. Arnold, L. E., Roley-Roberts, M. E., Ging-Jehli, N., Kerson, C., Pumphrey, K., & Loo, S. K. (2020). ADHD Neurofeedback 25-Month Follow-Up, Moderation of Response, and Neurocognitive Subtyping. In *2020 Virtual Meeting*. AACAP.

CURRENT PROJECTS

- A unified modeling approach, integrating sequential sampling models with neurocomputational models
- Characterize disorder-specific and transdiagnostic features across cognitive and social domains
- Neuronal and attentional signatures of attention-deficit/hyperactivity disorder (ADHD) within a novel cognitive flexibility task
- Characterizing bipolar disorder, depression, and schizophrenia: disentangling the roles of working memory and reinforcement learning
- Computational phenotyping of obsessive-compulsive disorders (OCD) within approach-avoidance Processing context

SELECTED PUBLIC OUTREACH AND PRESS RELEASES

Interview on the weekly "Wellness Wednesday" show on "All Sides with Ann Fisher" - a live public affairs talk show on WOSU-NPR (89.7 FM) Radio in Columbus, Ohio. Link: Radio Interview on Computational Psychiatry and ADHD - YouTube

Interview with Psychiatry & Behavioral Health Learning Network (Magazine). Link: Using Computational Models to Improve ADHD Diagnosis and Treatment (hmpgloballearningnetwork.com)

Press coverage in *The Science Times*. Link: Computational Models Could Help Diagnose Children with ADHD | Science Times

Press release: A pursuit of better testing to sort out the complexities of ADHD (osu.edu)

AD HOC JOURNAL REVIEWS (N≥33)

Biological Psychiatry; Brain; Clinical EEG and Neuroscience; Cognitive, Affective, & Behavioral Neuroscience; Cognitive Science; European Child & Adolescent Psychiatry; Frontiers in Psychology; Journal of Autism and Developmental Disorders; Journal of Cognitive Neuroscience; Molecular Psychiatry; Nature Communications; NeuroImage; Neuropsychology; Neuroscience and Biobehavioral Reviews; Psychological Medicine; Science Advances

RESEARCH GRANTS

Carney Institute's Advancing Research Careers (ARC) program (NINDS/NIH) for implementing independent research project "smartphone-compatible perpetual game with mechanistic neurocognitive assessments" (Amount: USD 25,000)	2023 – 2025
Swiss National Science Foundation for implementing independent research project "Using Computational Psychiatry to explore transdiagnostic features of neurodevelopmental- and mood-related disorders" (Amount: CHF 10,000)	2023 – 2025
Swiss National Science Foundation for implementing independent research project: "Using Computational Psychiatry for Phenotyping ADHD" (Amount: CHF 3,000)	2019 – 2020

AWARDS AND HONORS

Travel Award for the **American College of Neuropsychopharmacology (ACNP) conference** (Amount: USD 1,000)	2023
ThinkSwiss & Fullbright Alumni Travel Award, Embassy of Switzerland in the USA (Amount: USD 500)	2023
Swiss National Science Foundation Postdoc Award, Switzerland	2023

Travel & Networking Award, Women of Mathematical Psychology   2023
(Amount: EUR 500)

NIH Computational Psychiatry Postdoctoral Training (**T32**), Brown University, USA   12/2022 – 09/2023
(Amount: USD 113,680)

Presidential Fellowship, The Ohio State University, USA   08/2021 – 08/2022
(Amount: USD 40,000)

Swiss National Science Foundation Graduate Fellowship**,** Switzerland   01/2019 – 12/2020
(Amount: CHF 93,725)

University Fellowship, The Ohio State University, USA   08/2017 – 08/2018
(Amount: USD 20,000)

Graduation with honor: magna cum laude, University of Zurich, Switzerland   2017

Graduation with honor: magna cum laude, University of Zurich, Switzerland   2014

Named to the **Dean's List** in recognition of outstanding academic achievements, Switzerland   2012

Awarded the **Rieter-Prize** for the best Bachelor Thesis in 2012, Switzerland   2012

ACADEMIC PRESENTATIONS (CONFERENCES AND INVITED TALKS)

Poster Presentation	"Using Computational Modeling to distinguish between anhedonia and depression", 26th annual Mind Brain Research Day, Brown University, Rhode Island (USA)	2024
Oral Presentation	"Decoding Complexity: A Deep Dive into Mechanistic Computational Phenotyping for ADHD and Depression" at the American College of Neuropsychopharmacology (ACNP) Annual Conference Meeting, Tampa FL (USA)	2023
Oral Presentation	"Combining mechanistic tasks with innovative sequential sampling models to different slow-down mechanisms" at the New England Research on Decision-Making (NERD) conference, Boston (USA)	2023
Oral Presentation	"Cognitive Role of EEG Theta/Beta-Ratio for Behavior: Accounting for ADHD Heterogeneity" at the American Academy of Child and Adolescent Psychiatry (AACAP) conference, New York City (USA)	2023
Oral Presentation	"Dissecting decision dynamics in the basal ganglia" at the Mathematical Psychology Conference, Amsterdam (NL)	2023
Poster Presentation	"Multidimensional computational phenotyping of anhedonia & depression" at the Computational Psychiatry Conference, Dublin (IE)	2023
Poster Presentation	"Broader visual processing and distinct pupil dynamics facilitate perceptual conflict and compensate for ADHD distractibility", at the Mental Effort Workshop, Providence RI (USA)	2022
Oral Presentation	"Eye-tracking, Gaze, and Pupil Dynamics in ADHD: Biofeedback Possibilities during Novel Perceptual Conflict Task", at the American Academy of Child and Adolescent Psychiatry (virtually), Toronto (CA)	2022
Oral Presentation	"Personalized medicine using computational psychiatry", at the American Academy of Child and Adolescent Psychiatry (virtual due to COVID-19)	2021
Oral Presentation	"Neurocognitive subtyping of ADHD by Computational Psychiatry", at the International Conference on ADHD by CHADD (virtual)	2020
Oral Presentation	"Using Computational Modeling as a Moderator Analysis to Understand the Benefits of Neurofeedback for ADHD", at the American Academy of Child and Adolescent Psychiatry (virtual due to COVID-19)	2020
Poster Presentation	"Computational Psychiatry: Studying ADHD in neurocognitive tests", at the Society for Neuroscience Conference, Chicago, IL (USA)	2019

Poster Presentation	"On the implementation of computational psychiatry to study ADHD", at the Institute for Behavioral Medicine Research Conference, The Ohio State University, USA	2019
Poster Presentation	"Generosity across contexts" at the Social Norms and Institutions, International Conference at the Congressi Stefano Franscini (CSF) of ETH Zurich, Ascona, TI (CH)	2015

INVITED TALKS

Oral Presentation	"Integrative Computational Approaches for ADHD, mood disorders, and comorbidities – with implications for OCD", Invited talk at the Functional Neuroimaging & Bioinformatics Lab, Harvard McLean, Boston (USA)	2024
Oral Presentation	"Integrative Approaches for Cognitive Neuroscience & Computational Psychiatry" Invited talk at the Translational Neuromodeling Unit, ETH Zurich, Zurich (CH)	2024
Oral Presentation	"Promises and Challenges of Computational Psychiatry" Invited talk at the Nicolas Langer Lab, University of Zurich, Zurich (CH)	2024
Oral Presentation	"Innovating Approaches in Social-Cognitive Neuroscience & Computational Psychiatry – Empirical Evidence for ADHD & Depression" Invited talk at the Rebecca Saxe Lab, Massachusetts Institute of Technology, Boston (USA)	2024
Oral Presentation	"Towards a better ecosystem for managing, caring, and researching mental health conditions" at the ThinkSwiss Event at the Swiss Embassy, Washington DC (USA)	2023
Oral Presentation	"Using game theory and experimental economics to study social-cognitive characteristics in ADHD", at the Social-Cognitive Seminar Series at Brown University, Providence RI (USA)	2023
Oral Presentation	"Addressing ADHD and comorbidities with computational psychiatry: using new integrative testing; refining clinical charactristics; and tailoring treatments", invited talk at Brown University, USA	2022
Oral Presentation	"ADHD/ASD – A different way how to perceive the world", at the Cincinnati Children's Hospital Medical Center, USA	2019

TEACHING

Sheridan Teaching Seminar (Certificate I), Brown University   2023
Designing and preparing an (online) course:
"Foundations of Computational Psychiatry Toolkits and Applications"
Excerpt: *In this course, we go beyond the typical focus on technical modeling skills.*
Instead, we cover different tools and delve into the holistic process of computational modeling in psychiatry.

Graduate Teaching Associate, The Ohio State University   2021
Preparation and presentation of lectures, preparing syllabi, preparing homework and
quizzes, supervision of group work, grading homework, assignments, tests and quizzes.
The first two courses are undergraduate and graduate level courses. The last three courses are
undergraduate level courses.
>   PSYCH2220: Data Analytics in Psychology
>   PSYCH5613H: Biological Psychiatry
>   PSYCH5614: Cognitive Neuroscience
>   PSYCH3331: Abnormal Psychology
>   PSYCH4475: Psychology of The Self

Apprenticeship Trainer, UBS AG   2008 – 2011
Preparation and presentation of lectures in economics, banking, and finances.

Supervision of apprentices (including developing, conducting, and grading essays, assignments and quizzes).

LEADERSHIP & SUPERVISION

Leading a team (4 software engineers, 2 graphic illustrators, 2 research assistants) in self-funded independent study to develop innovative platform for wholistic neurocognitive testing at Brown University	01/2024 – current
Advising graduate student (Ziwei Cheng) in cognitive computational modeling at Brown University	01/2024 – current
Advising engineering student (Swarag Thaikkandi) in cognitive computational modeling at Brown University (as part of a Conte Center grant)	09/2022 – current
Advising data science student (Shiqi Wang) in statistical analyses & machine learning (1 semester) at Brown University	09/2023 – 12/2023
Advising undergraduate capstone project (1 semester) in decision sciences (Elizabeth Duchan) at Brown University	09/2023 – 12/2023
Advising medical student (Ahmed Abdelbaki) in statistics at The Ohio State University	08/2023 – 12/2023
Advising clinical/medical graduate students (Pranavan Chanthrakumar, Quinn Painter) and undergraduate students (Qile Jiang) in computational modeling	09/2022 – 04/2023
Advising undergraduate research assistants (Karly Britt, Aditya Maroju, Prateek Palsule, Jacob Sellers) in the Van Zandt lab (mentoring in: conducting statistical analyses, collecting eye-tracking and EEG data, applying computational models, applying to graduate school)	08/2020 – 05/2022
Advising research assistants (Shea Connor, Alex Lingel, Madeline Thomas, Catherine Panchyshyn) in conducting laboratory experimental paradigms (research assistants from various labs)	02/2019 – 12/2019
Advising research assistants (Justin Voyzey, Sam Stelnicki, Saarthak Gaur) in conducting eye-tracking studies (research assistants from various labs)	01/2018 – 12/2018
Leading a team (4 members) as a chief of staff in a Consultancy Boutique	02/2012 – 03/20213

UNIVERSITY AND COMMUNITY SERVICE

ARC program represener at the Annual Postdoctoral Symposium, at Brown University	2024
Consultant in computational modeling across universities	2023 – present
Advisor for students' capstone projects in decision sciences	2023
Modeling advisor for the open-source HDDM toolbox (helping resolving modeling issues)	2022
Statistical advisor for medical and clinical students conducting statistical analyses in SPSS & R	2022
Undergraduate Mentor for PhD applications (writing workshop, review materials, interviews)	2020 – 2022
Guest lecture in an undergraduate course: how to find research topics and how to apply for PhD programs	2021
Internal workshop for undergraduates: Using R to simulate data with the diffusion decision model	2019
Guest lecture as a volunteer at the high school in Pfaeffikon, ZH (Switzerland). Topic: "What is Macroeconomics and how to handle money responsibly?"	2011

PROFESSIONAL MEMBERSHIPS

Psychonomic Society; Society for Mathematical Psychology; Society for Neuroscience; Member of SwissImpact Transcontinental Computational Psychiatry Workgroup (TCPW); Women of Mathematical Psychology

ADDITIONAL TRAINING

Neuroscience

Computational Cognitive Neuroscience (1 semester; course by Michael J. Frank), Brown University   2023

Foundation of Neuroscience I and II, School of Medicine (1 year), Ohio State University   2018/2019

Behavioral Endocrinology, School of Medicine (1 semester), Ohio State University   2018

Computational Modeling

Reinforcement Learning Workshop (1 day), Mathematical Psychology Conference   2023

Dynamic Causal Modeling Workshop (2 days), Brown University   2022

Computational Modeling Workshop (2 weeks), Carney Center for Computational Brain Science   2022

Modeling EEG Data Workshop (2 weeks), Brainstorm EEG Challenge, Brown University   2022

Computational Psychiatry Workshop (1 week), Zurich (Switzerland)   2019

IT & MedTech

Med Tech Leadership Program (6 months), New England Medical Innovation Center   2022/2023

European Computer Driving License Certificate (1 year), Chur (Switzerland)   2007

Swiss **IT Certificate** (1 year), Chur (Switzerland)   2007

Leadership & Teaching

Sheridan Teaching Certificate (1 semester), Brown University   2023

Leadership Workshop for **apprenticeship trainers** (1 week), UBS AG   2008

PROGRAMMING & TECHNICAL PROFICIENCY

Programming & Softwares

Proficient in working with operating systems: **Linux**, **IOS** (mac), and **Microsoft**

Proficient in **R**; Advanced in **STATA, SPSS**, and **WinBUGS**, Knowledge in **SAS and JASP**

Proficient in computational modeling softwares: **Stan, BRMS, EMC, DMC, HDDM, HSSM, fast-DM**

Proficient in **MATLAB** (including toolboxes: **Psychtoolbox, Signal Processing, ERPLab**)

Proficient in **z-Tree (programming language: C++)** program for real-time interactions in lab experiments

Advanced in **Python, LATEX, Fortran**

Advanced in writing **bash scripts**

Knowledge in **PyMC, PyTorch, emergent** (biologically inspired neural networks)

Hardware & Technology

Proficient in conducting **eye tracking** studies using **eyelink and gazepoint**

Advanced in conducting **full-cap** electroencephalographic (**EEG**) studies

Knowledge in collecting and analyzing **fMRI** data

COMPUTATIONAL MODELING PROFICIENCY

Within both **Bayesian & Frequentist** frameworks

Proficient in **sequential sampling modeling** (e.g., diffusion decision modeling)

Proficient in **descriptive distribution modeling** (e.g., ex-Gaussian distribution modeling)

Advanced in **reinforcement learning modeling** (e.g., RLWM modeling)

Knowledge in **biologically inspired neural network modeling** (e.g., PBWM modeling)

MACHINE LEARNING PROFICIENCY

Proficient in **support vector machines**

Proficient in **cluster-based analyses**

Proficient in **logistic regression**

Proficient in **principal and independent component analyses**

Proficient in **factor analyses**

Advanced in **deep neural networks**

STATISTICAL PROFICIENCY

Proficient in **multi-level linear mixed modeling** and **Bayesian hierarchical modeling**

Proficient in **moderator** analyses and **mediator** analyses (particularly for randomized clinical trials)

Proficient in **ANOVA**s, simple and multivariate **regressions**

Proficient in **Time Series Analyses**

Knowledge in **structural equation modeling** and **dynamic causal modeling**

LANGUAGE PROFICIENCY

German – Native (Swiss citizen)

English – Full Professional Proficiency (oral and written); First Certificate in English; TOEFL iBT English Diploma (reading: 29 of 30, speaking: 28 of 30, listening: 28 of 30, writing: 28 of 30, total score: 113)

French – Full Professional Proficiency (oral and written); DELF A1, A2, A3 and A4

Italian – Basic (oral and written), DELI-diploma