

Mischa Gushiken (Yuri)

Curriculum Vitae

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Draft Version - March 29, 2025

EDUCATION

Columbia University, Teachers College, New York, NY

May 2023 - Current

Master of Arts in Educational Technology Specialist

GPA: 4.0/4.0; In Progress - 38 credits/points

University of California, Davis, Davis, CA

January 2009 - December 2010

Bachelor of Arts in Political Science

GPA: 3.65/4.0; Honors: Dean's List, Top 10% of class; Mini Minor: History

RESEARCH INTERESTS

Mental Representations, Numerical Cognition, Agency, Discontinuity, Data Analysis Methods, Greek Philosophy, Ancient History.

RESEARCH EXPERIENCE

Language and Cognitive Neuroscience Lab, Teachers College, Columbia University *August 2024 - Present*

Research Assistant

Project 1: Eye-Track-RL Machine Learning Feature Extraction Pipeline

- *Supervisor: Prof. Peter Gordon*

- Lead author of a machine learning pipeline for automated eye-tracking video analysis; project evolved from an initial ML implementation (Eye-Track-ML) to incorporate reinforcement learning (Eye-Track-RL).
- Presented Eye-Track-ML project as guest lecture (with Y. Li) in BBSN 5022: Eye-Tracking Dynamic Data Analysis (March 2025).
- Project in progress with manuscript in preparation.

Project 2: Infant Event Representations Study

- *Supervisor: Prof. Peter Gordon*

- Led data processing efforts using the Eye-Track-ML/RL pipeline.
- Applied automated pipeline to process large-scale infant eye-tracking dataset (1,600,000 frames).
- Collaborated with Y. Li on subsequent data analysis.

Project 3: EEG Numbers Study

- *Supervisor: Prof. Peter Gordon*

- Interpreted data analysis results from study investigating electrophysiological responses to numerical stimuli.
- Contributed to manuscript and poster content preparation through data interpretation and editing.

PUBLICATIONS

Manuscript in Preparation

Gushiken, M., et al. **Eye-Track-RL: A Machine Learning Pipeline for Automated Eye-tracking Video Analysis with Reinforcement Learning Components**

CONFERENCE PRESENTATIONS

Gushiken, M., Li, Y., Tang, J. E., Gordon, P. (2025). **Eye-Track-ML: A Machine Learning Pipeline for Automated Frame-by-Frame Coding of Eye-Tracking Videos**. Poster presented at the Columbia AI Summit (March 4, 2025), New York, NY; Poster presented at Columbia Data Science Day (April 2, 2025), New York, NY.

Tang, J. E., Li, Y., Smith, P., Spitzmueller, J., Gushiken, M. (Yuri), Tobing, C., Gordon, P. (2025). **Electro-physiological and Behavioral Indices of Numerical Perception and Cognition**. Poster presented at the Cognitive Neuroscience Society (CNS) Annual Meeting (April 1, 2025), Boston, MA.

TEACHING EXPERIENCE

Teaching Practicum in Educational Technology | Teachers College

Fall/Spring 2024

- Co-taught technology lessons (e.g., AI with Teachable Machine, computational thinking with Turtle Art) to K-12 students (e.g., 4th grade) integrating NYS Computer Science standards.
- Collaborated with mentor teachers to plan and implement technology-enhanced instruction.
- Supported educators in exploring and using educational technology tools effectively in the classroom.

PROFESSIONAL EXPERIENCE

Service Manager / EFL Consultant | Wall Street English

Bangkok, Thailand

October 2018 – May 2023

- Taught business English, technology applications, IELTS, and TOEIC to adult learners.
- Conducted corporate training on leadership, service delivery, and performance feedback.
- Managed scheduling, meetings, events, and staff development initiatives.
- Employee of the Year Award recipient, 2021.

Head Teacher / Teacher | E.C.C. Thailand

Bangkok, Thailand

October 2013 – October 2018

- Managed teachers, scheduling, curriculum, materials, meetings, and teacher observations.
- Developed curriculum for English programs at Bangkok Technical of Business Administration College and Bangkok Suvanabhumi University.
- Taught general English courses, university courses, and private lessons at various levels.

Assistant Language Teacher | Nakijin Board of Education, JET Programme

Okinawa, Japan

August 2012 - August 2013

- Taught full time at Nakijin Junior High School.
- Founded local community English courses for adults.
- Led summer camp for elementary school students and taught at intensive English camp for high school students.
- Teaching ability noted in local and prefectural newspapers.

Grade 6 Teacher | Horizon International School

Mandalay, Myanmar

March 2012 - May 2012

- Developed summer curriculum.
- Taught computer literacy and internet usage classes.
- Gained teaching experience at an IB world school.

K-12 English Teacher | Ministry of Education

Krtsanisi, Georgia

September 2011 - December 2011

- Taught twenty-five hours per week.
- Assisted with One Laptop Per Child (OLPT) program.
- Founded and led after-school English program for adults.

Intern | Center for American Progress

Washington D.C., USA

January 2010 - March 2010

- Updated daily reports for President John Podesta's meetings.
- Prepared research notes for meetings with foreign leaders and representatives.

SKILLS

Programming Software: Experience with Python; R; GIS (ArcGIS, QGIS); LaTeX (via Overleaf); Microsoft Autogen AI agents; Prompt Engineering

Technologies: RAG; GitHub (github.com/yurigushiken)

AI/ML: Neural Networks, Supervised Learning, Reinforcement Learning

Languages: English (native), Thai (intermediate), Spanish (beginner), Japanese (beginner)

Other: Member of Phi Kappa Phi Honors Society, Senator at Woodland Community College (2006-2007), Certified Honda Automotive Technician (2005-2006)