

EDUCATION

- **University of Southern California, Los Angeles, CA** August 2024 - May 2025
M.S.: Neuroimaging and Informatics - GPA 3.86
- **University of California Santa Barbara, Santa Barbara, CA** January 2021 - September 2022
B.S.: Behavioral Neuroscience - GPA: 3.61
- **Santa Monica College, Los Angeles, CA** August 2017 - June 2020
A.A.: General Science - GPA: 3.64

EXPERIENCE

- **Graduate Research Assistant - Keck School of Medicine of USC, Los Angeles, CA** March 2025 - Present
 - *Image processing*: Processing magnetic resonance brain images (NIfTI), and implementing contrast and shape-based rules to identify and segment Lacunar infarcts.
 - *Supervised machine learning*: Improving lacune classification accuracy by evaluating the effectiveness of different imaging feature sets using Logistic Regression.
- **Programmer - Massachusetts General Hospital, Boston, MA** October 2022 - July 2024
 - Randomized Clinical Trial of Varenicline for Smoking Cessation*
 - *Data pipeline*: Designed and implemented data pipeline under Git to clean incoming data and oversee the development and integrity of clinical trial study data.
 - *Dataset harmonization*: Harmonized large-scale datasets of different formats (JSON and CSV) for exploratory and primary analysis.
 - *Statistical analysis*: Collaborated with biostatistician in implementing the statistical analysis plan to analyze bio-verified vaping abstinence data using Linear Regression.
 - *Data quality assurance and control*: Managed electronic data capture database REDCap, and advised on quality control, ensuring reliability of study data.
 - School-Wide Screening for Substance Use and Risk Factors (SURF)*
 - *R Shiny apps*: Developed R Shiny applications to automate data visualization, monitoring, and processing, reducing processing time by 94%.
 - *Report design and automation*: Designed an annual epidemiological report for over 60 regional schools, automatically generated through Markdown, and with code capable of sustaining an increasing number of enrolled schools (over 200 for the following year).
 - *Data management*: Managed the preparation of large datasets for analysis and sharing with collaborators, trained staff in R programming, code reproducibility, data analysis, software development, and privacy regulations.
 - *Data visualization*: Prepared figures, tables, and ad hoc reports for presentations, written publications, and grant submissions.
- **Research Intern - Bar-Ilan University, Tel Aviv, Israel** August 2020 - December 2020
 - Neural and Gaze Pattern Coordination*
 - *Data cleaning and analysis*: Processed, cleaned, and analyzed eye-tracking data to measure EEG and gaze coordination patterns using repeated measures ANOVA.

PROGRAMMING SKILLS

- *Advanced*: 3+ years of experience in R, Unix shell (Bash).
- *Intermediate*: 1+ years of experience in Python, MATLAB (Including analysis of MRI data using FSL, SPM).
- *Beginner*: 6+ months of experience in VBA, Lua.

GRADUATE COURSES

- *Physics & Medical imaging*: Neuroimaging Data Acquisition with MRI (NIIN530); Fundamentals of Human Neuroimaging (NIIN 510); Experimental Design for Neuroimaging (NIIN 520);
- *Data science & machine learning*: Neuroimaging Data Processing Methods (NIIN 540); Computational Modeling in Neuroimaging (NIIN 550); Data Science in Neuroimaging (NIIN 580);
- *Neuroscience & research*: Neuroimaging and Systems Neuroscience (NIIN 500); Neuroimaging Genetics (NIIN 570); Current Topics in Neuroimaging Informatics (NIIN 597); Science Communications (NIIN 600).

PUBLICATIONS

- [1] Costello, M., **Bodolay, A.**, Gray, C., Du, R., Potter, K., & Schuster, R. (2025). Emotional Reactivity is a Transdiagnostic Risk Factor for Substance Use Initiation in Middle and High School Students. *Drug and Alcohol Dependence*, 267, 111623
- [2] Schuster, R., Cather, C., Pachas, G., Iroegbulem, V., Dufour, J. R., Casottana, K. D., Zhao, J., Potter, K., **Bodolay, A.**, Evins, A. E. (2025). Characteristics of Adolescents Presenting for a Pharmacotherapy Vaping Cessation Trial who Never Smoked Tobacco Regularly. *Drug and Alcohol Dependence*, 267, 111982
- [3] Costello M. A., Pascale M. P., Potter, K., Knoll, S. J., **Bodolay, A.**, Kaur, J., Du, R., Greenspan, L., Gray, C. A., McIntyre, J., & Schuster, R. M. (2025). Understanding Adolescent Mental Health Symptom Progression in School-Based Settings: The Substance Use and Risk Factors (SURF) Survey. *School Psychology*.
- [4] Pachas, G. N., Reeder, H. T., Evins, A. E., Casottana, K., Borrego, M. M., **Bodolay, A.**, Gray, C. A., Potter, K. W., Keuroghlian, A. S., & Schuster, R. M. (2025). Substance use, suicidal behaviors, and other mental health outcomes among youth with intersectional sexual and gender diverse identities. *Journal of the American Academy of Child & Adolescent Psychiatry Open*. In Press.
- [5] Liu, J., Knoll, S. J., Pascale, M. P., Gray, C. A., **Bodolay, A.**, Potter, K. W., Gilman, J., Evins, A. E. , & Schuster, R. M. (2024). Intention to quit or reduce e-cigarettes, cannabis, and their co-use among a school-based sample of adolescents. *Addictive Behaviors*, 157, 108101.
- [6] Gray, C. A., Iroegbulem, V., Deming, B., Butler, R., Howell, D., Pascale, M. P., **Bodolay, A.**, Potter, K., Turncliff, A., Lynch, S., Whittaker, J., Ward, J., Maximus, D., Pachas, G. N., & Schuster, R. M. (2023). Pragmatic Clinical Effectiveness Trial of a Novel Alternative to Punishment for School-Based Substance Use Infractions: Study Protocol for the iDECIDE Curriculum. *Frontiers in Public Health*, 11, 1203558

LANGUAGES

- *Fluent*: English and Portuguese (native)
- *Intermediate*: French
- *Beginner*: Spanish

AWARDS AND ACHIEVEMENTS

- *Peer mentor, Transfer Edge, 2021*: Mentored incoming transfer and international students part of the Transfer Edge program, providing support and resources for student success and well-being;
- *Academic Scholarships, 2020*: Recipient of academic scholarships including Associated Student Government (ASG) Leadership scholarship, Dr. Harry L. & May P. Bauer Memorial scholarship, and AS Scholarship for Student Success for undergraduate studies;
- *President Ambassador, 2019*: 1 of 13 students selected for the Ambassador program aimed to guide prospective and current students in their pursuit of higher education;
- *Executive Secretary, International Honor Society, 2019*: Acted as executive secretary for Phi Theta Kappa International Honor Society raising funds, and promoted academic excellence and student well-being;
- *Sustainability Workshop Leader, 2018*: 1 of 2 students selected as sustainability workshop leaders.