

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) using Python, 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 on Git repository to clean incoming data, ensuring repeatability of analyses while overseeing the integrity of clinical healthcare data.
 - *Dataset harmonization*: Harmonized large-scale datasets of different formats (JSON and CSV) using R 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 R 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 gaze coordination patterns among parent-child dyads using repeated measures ANOVA.

PROGRAMMING SKILLS

- *Advanced*: Over 3 years of experience in R, Unix shell (Bash).
- *Intermediate*: 2 years of experience in Python, 1 year in MATLAB.
- *Beginner*: Over 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.