Katelyn Sadorf

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Education

California Institute of Technology *Sept 2024 – Jun 2028*
BS in Computer Science, Minors: Neurobiology, Information and Data Systems

- GPA: 3.8/4.0
- **Relevant Coursework:** Introduction to Computer Programming (CS1), Introduction to Programming Methods (CS2), Introduction to Software Design (CS3), Molecular Biology (Bi8), Cell Biology (Bi9), Introduction to Neuroscience (NB/Bi 150), Learning Systems (CS/CNS/EE 156a)*, Applied Linear Algebra (ACM/IDS 104)*

Florida Atlantic University *Aug 2023 – May 2024*
Dual Enrollment

- GPA: 4.0/4.0
- **Coursework:** Data Structures and Algorithm Analysis with Python (COP 3410), Neuropsychology (PSB 4240), Calculus with Analytic Geometry 3 (MAC 2313), Differential Equations 1 (MAP 2302)

Spanish River High School *Aug 2020 – May 2024*
High School Diploma

- GPA: 5.24/4.0
- **Relevant Coursework:** AP Computer Science Principles (5), AP Computer Science A (5), AP Biology (5), AP Psychology (5), AP Calculus AB (5), AP Calculus BC (5)
- **Selected HS Awards:** Ronald N. Davis Scholar-Athlete of the Year; FHSAA Florida Dairy Farmers Academic All-State Team; Pathfinder Award for Computer Engineering and Technology - 2nd Place; Regeneron Biomedical Science Award - Palm Beach Regional Science Fair

Research Experience

Undergraduate Researcher - Meister Lab *Pasadena, CA*
California Institute of Technology *Feb 2025 – Present*

- Conducted behavioral experiments on spatial learning in acortical mice using a two-layer modular maze.
- Processed and cleaned behavioral trajectory data with custom Python scripts; retrained DeepLabCut models for improved tracking accuracy.
- Analyzed navigation patterns and learning metrics with Python-based tracking and analysis tools.
- Selected as a Bristol-Myers SURF Fellow through the Caltech Summer Undergraduate Research Fellowships (SURF) program.

AI Scholar Program Attendee *Remote*
Veritas AI *Dec 2022 – Feb 2023*

- Met weekly with students from around the world to explore the core functions of machine learning in Python.
- Built a robust CNN for image classification on CIFAR-10 as capstone project.

Independent Zebrafish Larvae Researcher (Mock-Paper) *Boca Raton, FL*
Spanish River High School *Sept 2022 – Dec 2022*

- Designed and conducted an experiment investigating the effects of melatonin and dopamine hydrochloride on memory formation and retention in zebrafish larvae using a T maze behavioral assay.
- Administered varied doses of melatonin and dopamine to zebrafish larvae over six days, followed by training sessions to condition memory pathways and subsequent testing for retention.
- Contributed to understanding the cognitive effects of commonly prescribed medications, gaining hands-on experience in experimental design, behavioral analysis, and data interpretation.

Industry Experience

Software Engineer *Remote*
Clearview Social *June 2023 – Nov 2023*

- Designed and implemented frontend components using HTML, CSS, and React.js as part of a brand redesign.
- Developed dynamic user interfaces by integrating GraphQL APIs for efficient data fetching and state management.
- Received return offer following completion of internship.

Technologies

Languages: Python, Java, JavaScript, HTML, C, Bash

Frameworks & Tools: PyTorch, TensorFlow, GraphQL, DeepLabCut, Git, Microsoft Excel

Lab Techniques: Experimental design, gel electrophoresis, PCR, ELISA, behavioral assays, microscopy, spectroscopy

Extracurricular Interests

Intercollegiate Cross Country and Indoor/Outdoor Track & Field *Pasadena, CA*
California Institute of Technology *Aug 2024 – Present*

- Practice and run races 6 days/week (approximately 20-25 hours/week) year-round.