BRYAN OLIVEIRA

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Education

California Institute of Technology — Jun. 2026
Bachelor of Science in Computer Science | GPA: 3.7 — *Pasadena, CA*

Relevant Coursework

- Object-Oriented Programming
- Algorithms and Complexity Analysis
- Data Structures
- Software Design
- Systems Programming
- Deep Learning Systems
- Relational Databases
- Differential Equations
- Probability Models
- Web Development
- GPU Programming
- Machine Learning and Data Mining
- Integrated Circuits

Technical Skills

Languages: JavaScript, Python, C, C++, Java, HTML, CSS, MySQL, MATLAB
Frameworks/Libraries: React, Flask, PyTorch, sklearn, pandas, Matplotlib, NumPy, CUDA
DevOps & Other: Git, VSCode, Linux, WSL, LaTeX

Experience

Navy Federal Credit Union — Jun. 2024 – Sep. 2024
Software Engineer Intern — *Vienna, VA*

- Engineered internal SharePoint portals for the Security, Financial, and Fraud teams consisting of 60+ users cutting average onboarding time by about 15%.
- Designed 30+ custom UI icons and infographics using HTML, CSS, and JavaScript, strengthening branding and enhancing UI/UX cohesion.
- Spearheaded development of a JavaScript org-chart creation web app to replace static diagrams and to enable real-time structural updates for all ~24,000 employees.

Projects

Affor-db: House Affordability Database Application | *Python, MySQL* — Feb. – Mar. 2025

- Co-created a CLI tool integrating MySQL schemas with housing, mortgage, and job market datasets to generate personalized affordability metrics across 450+ jobs and 350+ companies across all U.S. states.

Leggies: Physics-Based Fighting Game | *C, GitLab* — May – Jun. 2024

- Constructed a 1v1 multiplayer fighting game with collision detection, sprite animation, and real-time combat logic.
- Developed a custom physics engine in C for applying object-oriented design patterns for entity behavior.
- Collaborated with a 3-person team using GitLab, resolving merge conflicts and optimizing shared code structure.

Secure Password Recovery Tool | *Python, Flask, HTML, CSS, MySQL* — Dec. 2023

- Developed a secure password reset system using one-time hashed token authentication, enabling recovery for 180+ users.
- Integrated Flask with a MySQL user database and front-end interface for seamless end-to-end user password recovery.

Leadership / Extracurriculars

Caltech Hispanic and Latino Association (SHPE Chapter) — Jun. 2024 – Present
Social Director — *Pasadena, CA*

- Directed community-building events, strengthening networks for Caltech's 170+ Latine undergraduates.
- Coordinated with 8 other executive committee members and many cross-campus leaders to advance diversity, equity, and inclusion initiatives.

Caltech Sunday League Soccer — Feb. 2023 – Present
Captain — *Pasadena, CA*

- Lead and manage a 31-member undergraduate team, coordinating with Caltech's recreation director on scheduling and compliance.

Caltech First-Year Success Research Institute — Jul. 2023 – Sep. 2023
Peer Mentor — *Pasadena, CA*

- Orchestrated weekly social events for 48 incoming first-year students, fostering community and accelerating their college transition, earning a 100% satisfaction rate in post-program surveys.
- Guided 10 students through bi-weekly check-ins, delivering personalized mentorship and academic/social support.