BRYAN OLIVEIRA

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Education

California Institute of Technology — **Expected: 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
- Machine Learning and Data Mining
- Integrated Circuits

Technical Skills

Languages: Python, JavaScript, C, C++, HTML, CSS, MySQL, Java, MATLAB
Frameworks/Libraries: Node.js, Express, PyTorch, sklearn, pandas, Matplotlib, NumPy, CUDA, REST APIs, Fetch API
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 with up-to-date information after organizational restructuring.
- 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

Comeback: Full-stack E-commerce Site with RESTful API | *JavaScript, Node.js, Express* — **May – Jun. 2025**

- Used the Fetch API to build a RESTful API backend supporting dynamic routes for products, FAQs, user feedback, and loyalty program endpoints.
- Managed front-end with HTML/CSS and JavaScript and handled backend logic with Node.js and Express to create route definitions, request validation, and error handling.
- Implemented user authentication for loyalty program signup/login and a feedback form using POST requests.

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

- Co-created a CLI tool integrating a MySQL database 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 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.

Leadership / Extracurriculars

Caltech Hispanic and Latino Association (SHPE Chapter)
Outreach Coordinator — **Jun. 2025 – Present**
Social Director — **Jun. 2024 – Jun. 2025**

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

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