Jacob Ponce

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EDUCATION

California Polytechnic State University, San Luis Obispo *San Luis Obispo, CA*
B.S. Computer Engineering (GPA: 3.85) Expected Graduation: **June 2026**
Relevant Courses: Data Structures, Object-Oriented Programming and Design, Systems Programming, Software Engineering, Computer Design and Assembly, Design and Analysis of Algorithms, Computer Architecture
Dean's List: Fall '22, Winter '23, Spring '23, Winter '24, Spring '24
President's List: 2022-2023

PROJECTS

Golf Course Rating System (React.ts, Node.js, Express.js, PostgreSQL, Docker, GitHub) **July 2024 – Present**

- Developed a full-stack web application to allow users to discover and review golf courses specific to college communities.
- Designed a REST API along with PostgreSQL relational database to handle user authentication and review submissions.
- Containerized the application with Docker and deployed it on the cloud via a DigitalOcean droplet, providing a public URL for seamless user access and scalability.
- Configured Nginx as a reverse proxy and obtained SSL certificates to secure the application with HTTPS.

Poly Maps (TypeScript, React Native, Firebase, GitHub, Expo) **May 2024 – Present**

- Collaborated in a team environment to develop a cross-platform mobile application using React Native and TypeScript for students at Cal Poly SLO to explore and manage clubs of interest.
- Integrated Firebase for backend services, including data storage, user authentication, and real-time database operations.

Networked Client-Server File Retrieval System (C, Unix, GitHub) **January 2024 – March 2024**

- Developed a client-server application in C for file-content retrieval over a network using TCP/IP sockets.
- Implemented concurrent handling of client requests using child processes, ensuring efficient process management.

Virtual World Simulation (Java, IntelliJ, GitHub) **August 2023 – November 2023**

- Refactored and tested individual entity movement patterns and interactions in a simulated environment to ensure optimal object-oriented design and implementation.
- Implemented unit testing to validate the functionality and performance of the A-star pathfinding algorithm for entities.

EXPERIENCE

Web Development Intern - Bailey College of Science and Mathematics **June 2024 – Present**

- Managed 23 subdomains handling 15,000+ users, employing agile development methods and ensuring prompt resolution of technical issues to maintain high user satisfaction and website reliability.
- Conducted user experience research and data analysis through Google Analytics and Screaming Frog SEO Spider to facilitate website remodeling and maintainability, leading to a 30% increase in user engagement.
- Leveraged HTML/CSS, Drupal, and JavaScript to create new user-friendly website designs tailored to client needs, enhancing functionality and visual appeal.
- Developed a Python web scraping tool using Beautiful Soup to aggregate website routing data into a CSV file, improving broken link resolution by 70%.

Tutor - Grade Potential Tutoring **May 2023 – Present**

- Achieved a 15% average increase in students' grades across math, computer science, and chemistry.
- Enabled students' development of problem-solving and critical thinking.

SKILLS

- **Programming Languages**: Python, C, Java, JavaScript, TypeScript, SQL, HTML5, CSS
- **Technologies**: Node.js, Express.js, PostgreSQL, Git, Docker, Postman, React, React Native, Unix
- **Interests:** Artificial Intelligence, Machine Learning, Skiing, Physical Fitness, Golf

AWARDS AND ACCOMPLISHMENTS

- 2022 NCGA (Northern California Golf Association)/CIF (California Interscholastic Federation) Championship Winner
- High School Golf Team Captain for 3 years