Jacob Kelleran

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EDUCATION

California Polytechnic State University, San Luis Obispo, CA   Graduating June 2026 (Expected)
Blended B.S. + M.S. in Computer Science   GPA: 3.8/4.0 major; 3.7/4.0 overall

RELEVANT COURSEWORK

Systems Programming	Deep Learning	Operating Systems
Software Engineering	Adv. Algorithm Analysis	Adv. Programming Languages
Object-Oriented Programming	Databases	Artificial Intelligence

SKILLS

Python (*NumPy, Matplotlib)*, JavaScript/TypeScript *(Node, React, Express, SvelteKit)*, HTML/CSS, Java, Rust *(Bevy, Tauri)*, C, GLSL Shaders, C++, C# *(ASP.NET, Unity)*, F#, Racket, ARM Assembly, SQL, MongoDB, Firebase, AWS, Azure, REST, Unix, Git, CI/CD, ChatGPT, ClaudeCode, Adobe, Microsoft Office

PORTFOLIO HIGHLIGHTS (AVAILABLE AT EMUMAN.NET)

- Portfolio (emuman.net) – HTML/JavaScript/CSS, Python/Flask
- Game Portfolio (emuman.net/games) – Unity, Godot, Bevy
- GPU Black Hole Rasterizer – C++, GLSL, Python
  - Built a GPU application that properly rasterizes black holes using the Schwarzschild Metric.
  - BVP solved by SciPy in Python, baked info used as 3D texture for geometry distortion in vertex shader.
- Blender Face Shader Addon – Python
  - Utilizes Blender's Python API to generate smooth cel shading for characters without external tools.
  - Includes high-performance multiprocessing, spatial transformations, and custom serialization.
- Cal Poly Esports Website (calpolyesports.com) – SvelteKit, MongoDB (full stack)
  - Built from the ground up for the council, hosted on Azure/MongoDB Atlas, with full CI/CD support.
  - Features administrator authentication, easy club management tools, and visually cohesive displays.

WORK EXPERIENCE

California Polytechnic State University, San Luis Obispo, CA   *September 2025 – Present*
Office of Writing and Learning – Graduate Assistant
  - Handle and analyze data describing required tutoring for athletics and other tutoring statistics.
  - Work with other staff to extract valuable information and create tools to optimize workflow.

Vetco Electronics, Bellevue, WA   *June 2025 – September 2025*
Business and Website Management
  - Programatically analyzed data from the store website to visualize product line and SEO-optimize descriptions.
  - Updated photos and breakdowns on the store website, answered customer questions, worked cash registers.

California Polytechnic State University, San Luis Obispo, CA   *September 2022 – March 2025*
Computer Science Peer Tutor (September 2022 – December 2024)
Lab Assistant and Grader (January 2022 – June 2023, January 2025 – March 2025)
  - Gained experience working with others and viewing problems from different points of view.
  - Helped solidify concepts and gained new understanding of fundamentals.

HONORS & ACTIVITIES

- President – Cal Poly Game Development Club   *2024 – Present*
- Treasurer – Cal Poly Esports   *2024 – 2025*
- Japanese Student Association Club Band (Genkey)   *2024 – 2025*
- Media Coordinator – Cal Poly Overwatch Club   *2023 – 2025*
- President's Honor List   *2021-2022 / 2023-2024*