

Education

California Polytechnic State University
Bachelors in Computer Science

San Luis Obispo, CA
Mar 2019

California Polytechnic State University
Masters in Computer Science

San Luis Obispo, CA
Dec 2020

Experience

Caci, Inc.
Software Engineer T2

Santa Maria, CA
Dec 2020 - Present

- **Full-stack developer** for rocket launch situational awareness software, serving the National Reconnaissance Office during critical launch operations.
- **Architected and implemented** the Launch Feed Display – a real-time Twitter-style interface that consolidates launch data from 15+ Redis sources, providing mission-critical situational awareness during rocket launches.
- **Spearheaded modernization initiative** as technical lead for next-generation launch software with Vue, Node, Redis, and modern UI components (Tailwind, Shadcn, Motion animations).
- **Created full-stack applications** including automated screenshot capture system using Puppeteer, and Electron-based launcher applications for internal tools.
- **Led launch support operations** as software lead for 4+ launches annually, managing configuration, deployment, and real-time technical support during critical mission phases.
- **Mentored team members** in launch procedures and modern development practices, while establishing code documentation and review processes.

Caci, Inc.
Software Engineer Intern

Santa Maria, CA
Jun 2020 - Dec 2020

- **Developed interactive visualization applications** using Electron for rocket trajectory analysis and data processing
- **Modernized legacy internal tools** by proposing and implementing new solutions to improve team efficiency
- **Applied orbital mechanics principles** to create accurate spacecraft trajectory simulations and analysis tools

Cal Poly / Apple
Cal Poly SURP Consultant to Apple (paid)

San Luis Obispo, CA
Jul 2019 - Sep 2019

- **Collaborated with Apple** through Cal Poly's Summer Undergraduate Research Program to develop code quality analysis tools
 - **Built data visualization systems** using Node.js and D3.js for code quality metrics and reporting
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Research Experience

Cal Poly
Game Design Research

San Luis Obispo, CA
Sep 2018 - Mar 2019

- **Published research** on multiplayer game engagement dynamics at IEEE Conference on Games 2019
- **Analyzed social group dynamics** to enhance player engagement and interaction in multiplayer environments
- **Applied game design principles** to understand how peer presence affects player behavior and satisfaction

Cal Poly
Masters Thesis

San Luis Obispo, CA
Mar 2020 - Dec 2020

- **Developed personality-driven AI system** using Big-Five personality traits and emotion models for enhanced NPC behavior
 - **Implemented intelligent NPC framework** that improves immersion and decision-making quality in games
 - **Applied psychological principles** to create more realistic and engaging non-player character interactions
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Game Development: Unity Game Engine, Maya, Blender, C#, C++