

## 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

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## 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 2022

- **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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**Web Technologies:** JavaScript, TypeScript, Node, Vue, React, Three.js, Puppeteer, Docker, Electron

**Game Development:** Unity Game Engine, Maya, Blender, C#, C++