JIM PAMPLONA

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EDUCATION

Embry-Riddle Aeronautical University **Spring 2025**
Bachelor of Science in Software Engineering, Minor in Psychology GPA: 3.8/4.0; *Magna Cum Laude*

Relevant coursework: Data Structures & Algorithms, Software Construction, Software Requirements Engineering*****, Microprocessor Systems, Real-Time Embedded Systems, Software Team Project Senior Design, Software Project Management*****, Software Quality Assurance*****, Human-Computer Interaction

* = Masters-level

SKILLS

Languages & Frameworks:
Java, Python, C++, C, Dart, MATLAB, HTML/CSS, JavaScript, Node.js, Express.js, React, MySQL, SQLite, Next.js, Tailwind CSS, TypeScript

Tools/Software:
GitHub, Jira, VS Code, JetBrains IDEs, Eclipse, Microsoft Office, CATIA, Figma, MATLAB, Simulink, Gazebo, Vercel, Adobe Creative Cloud

Concepts:
Agile/Scrum Methodologies, Git, Object-Oriented Programming, Assembly/Low-level programming, Microprocessor debugging/programming, App development, Front-end development, Back-end development, Full-stack development, UI/UX design

WORK EXPERIENCE

Contract Lead Software Engineer **Aug 2025 – Present**
MZO Camp Wish You Well – A Visual Novel Game *Phoenix, AZ | Part-Time | Remote*
- Leading a full redevelopment of a discontinued mobile game with 196k+ plays and 16k+ users, reviving a title that brought them joy and comfort.
- Defining product requirements and designing user interfaces using Figma, creating interactive prototypes that align with stakeholder expectations.
- Utilizing React Native, Node.js, GraphQL, PostgreSQL, MongoDB and AWS S3, integrating responsive front-end design with scalable backend services, real-time data handling, and cloud-based asset storage.

Graduate Software Engineering Intern **May 2025 – Aug 2025**
Honeywell Aerospace *Phoenix, AZ | Full-Time | In-person*
- Utilized MATLAB Simulink Requirements toolbox to trace 1,500+ software requirements to artifacts (implementation, tests, etc.) within the system.
- Developed a MATLAB support tool that automated requirements traceability of the system, generating 3,100+ trace links in under 10 minutes and saving the team 300+ hours of manual labor by reducing human error and eliminating repetitive tasks.

IT Software Engineering Intern **May 2024 – Aug 2024**
GA Telesis, LLC *Fort Lauderdale, FL | Full-Time | In-person*
- Resolved critical system downtime issues by developing JavaScript workaround scripts, reducing downtime by 30% and was utilized across globally impacted company locations.
- Leveraged Oracle PL/SQL to update databases in the Quantum Control ERP system and documented scripts used within GitHub library.
- Programmed HTML/CSS pages in the team's Oracle APEX application project that optimized aerospace engineers and inspector's duties, as they no longer needed to handwrite forms and documentation.

PROJECT EXPERIENCE

Project COMET **Feb 2025 – Present**
Software Engineer – 5-person team
- Supporting the development of the system-level flight software and command and data handling (CDH) architecture for a 12U CubeSat low-earth orbit launch mission that will be demonstrating mmWave inter-satellite communication at target data rates of 500 Mbps.
- Developing onboard software in C++ using NASA's F Prime framework, implementing subsystem controllers, inter-process communication, and telemetry handling, alongside a front-end dashboard for real-time data visualization and command execution.

Versatile Autonomous Navigation Testing and Guidance Environment **Sept 2024 – May 2025**
Scrum Master – 4-person team
- Tested unmanned aircraft systems (UAS) collision avoidance through creation of two-tiered simulation framework that utilizes JuliaSim for low-fidelity simulations and Gazebo & Ardupilot for high-fidelity simulations.
- Elicited system specifications from the product owner and developed software components in alignment with the documented requirements.
- Enhanced system interaction and testing efficiency by developing a Python front-end controller interface to integrate with Julia backend.

JPfolio: A Personal Portfolio Website **July 2024 – Aug 2024**
Lead Developer – Personal project
- Developed a modern React personal portfolio utilizing Next.js, Tailwind CSS, and TypeScript, leveraging its route handling, type safety, and styling capabilities, and for an optimized and responsive user experience.
- Created an initial version to learn Next.js, followed by a refined version to apply the skills acquired and demonstrate improvements.

FitSage: A Home Workout and Nutrition Application **Jan 2022 – Jun 2023**
Scrum Master, Lead developer – 4-person Team
- Assisted assist users in their personal fitness goals without leaving their homes by developing a full-stack system (Java, SQLite, and Flutter Framework on Android) of an at-home fitness and nutrition app.
- Equipped app with Optical Character Recognition (OCR) to scan nutrition label data, enabling users to monitor calorie and macronutrient intake.
- Managed Agile/Scrum processes for effective project management and collaboration, ensuring timely delivery of the product.

LEADERSHIP

Chapter President — *Society of Asian Scientists and Engineers @ ERAU-DB* **May 2024 – May 2025**
Peer Mentor — *Discover/First-Generation Students Association* **Aug 2022 – May 2025**
Digital Relations Officer — *Society of Asian Scientists and Engineers @ ERAU-DB* **May 2023 – May 2024**