JIM PAMPLONA

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EDUCATION

Embry-Riddle Aeronautical University — Expected Graduation: **Spring 2025**
Bachelor of Science in Software Engineering, Minor in Psychology — GPA: **3.81**
Embry-Riddle Aeronautical University — Expected Graduation: **Spring 2026**
Master of Science in Software Engineering, Accelerated Program

SKILLS

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

Tools/Software:
GitHub, VS Code, JetBrains IDEs, Eclipse, Microsoft Office, Adobe Creative Cloud (Photoshop, Illustrator, Premiere Pro, Lightroom), CATIA, Figma

Concepts:
Agile/Scrum Methodologies, Git, Object-Oriented Programming, Assembly/Low-level programming, Microprocessor debugging/programming, Data Structures & Algorithms, Full-stack development, Photography, Videography, Graphic Design, Database, UI/UX

PROJECT EXPERIENCE

AI-Driven UAS Collision Avoidance System — **Sept 2024 – Ongoing**
Scrum Master – 4-person Team, Senior Design Project
- Co-developing an open-source framework to test AI-controlled UAS collision avoidance with a two-tiered simulation approach.
- Conducting extensive testing in JuliaSim and performing in-depth 3D analysis in Gazebo, managing simulations with custom Python code.
- Integrating system into CrazyFlie UAS and Robot OS to enable real-world testing of collision avoidance strategies.

Society of Asian Scientists and Engineers Website — **Aug 2023 – Ongoing**
Digital Relations Officer, Lead Developer
- Rebuilding the organization's website, transitioning from the MERN stack to Next.js and TypeScript to better fit the static scope of the website.
- Implementing responsive design principles to ensure the website provides an optimal viewing experience across a wide range of devices, from desktops to smartphones, enhancing accessibility and usability for all users.

JPfolio: A Personal Portfolio Website — **July 2024 – Aug 2024**
Lead Developer
- 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.

Visionary: A Photography Portfolio Website — **Jan 2024 – May 2024**
Lead Developer – 2-person Team, DBMS Project
- Integrated MySQL into the MERN stack (replaced MongoDB to adhere to project requirements) to efficiently manage photography data, optimizing storage and retrieval processes while ensuring scalability and performance.
- Designed wireframes using Figma, applying UI/UX principles with a focus on responsive and modern design for a smooth experience.
- Utilized the ChakraUI React design system library to boost productivity and create a simple, modular, and visually consistent user interface.

FitSage: A Home Workout and Nutrition Application — **Jan 2023 – Jun 2023**
Scrum Master, Lead developer – 4-person Team
- Developed front-end and back-end of an at-home fitness and nutrition app using Java, SQLite, and Flutter Framework on the AndroidOS. platform, ensuring seamless communication, efficient data handling, and a user-friendly interface.
- Utilized 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, resulting in the timely delivery of a feature-rich and user-friendly application to fellow peers in college.

WORK EXPERIENCE

IT Software Engineering Intern — **May 2024 – Aug 2024**
GA Telesis, LLC
- Conducted research regarding optimization of aircraft parts sales AI-powered ERP integration and presenting to industry leaders.
- Leveraging Oracle PL/SQL to update databases in the Quantum Control ERP system and documenting scripts used within GitHub library.
- Developing JavaScript scripts to troubleshoot and resolve software issues, providing reliable solutions and reducing downtime of systems.
- Developed HTML/CSS pages in the team's Oracle APEX application project that optimizes aerospace engineers and inspector's duties.

LEADERSHIP

President — **May 2024 – Ongoing**
Society of Asian Scientists and Engineers @ ERAU-DB
- Directing an executive board of 7 highly motivated students to provide professional and social opportunities to the Asian students of ERAU.
- Optimizing chapter operations by founding 4 new committees and delegating responsibilities to the leaders within our chapter.
- Leading an expansion of our chapter to offer members a Mentorship program, K-12 Outreach volunteering, and more professional development opportunities, fostering community growth as well as personal growth for our members.

Digital Relations Officer — **May 2023 – May 2024**
Society of Asian Scientists and Engineers @ ERAU-DB
- Designed graphics and other media using Canva, Adobe Photoshop, and Adobe Illustrator, to market and reach 500+ followers on social media, essentially doubling the chapter's membership count and engagement.
- Led a team of 12 members on the media committee, ensuring a streamlined collaboration and productivity while also mentoring them on the principles of photography, videography, and graphic design.