Samuel Xavier Borges

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EDUCATION

University of Central Florida — 2024 – 2028
Bachelor of Science in Computer Science, Minor in Studio Art | GPA: 3.5 — *Orlando, FL*

EXPERIENCE

Software Engineering Intern — May 2025 – Present
Data-Enabled Photovoltaics — *Orlando, FL*
- Automated parsing and normalization of heterogeneous instrument metadata by developing an **object-oriented Python** parser with **Pandas** and **SQLite**, reducing manual preprocessing time by over **75%**.
- Achieved consistent metadata provenance and context tracking by defining and validating **FAIR** data model standards and integrating workflow outputs across pipelines.

Software Engineering Intern — Feb 2025 – Present
Knight Hacks — *Orlando, FL*
- Improved site accessibility and maintainability by developing reusable **React/TypeScript UI** components to replace non-semantic SVG elements and embed proper **ARIA** attributes, enhancing keyboard navigation compliance and cutting UI code duplication.
- Developed a ground-up email automation system using the **Google API** to send personalized acceptance, denial, and event-detail communications to applicants for one of **Florida's largest hackathons**.

Software Engineering Intern — Mar 2025 – May 2025
Zuleris Interactive — *Orlando, FL*
- Developed a modular **Unity/C# radio interference simulator** with configurable overlap frequencies and **coroutine-driven** randomized jamming, enabling a fully adjustable multi-radio training tool.
- Implemented global static **C#** events to broadcast **UI** open/close and frequency changes, synchronizing audio playback and tuning across **four** independent radio instances for seamless, consistent behavior.

Software Engineering Intern — Jun 2023 – Aug 2023
Miami EdTech — *Miami, FL*
- Assisted with the testing and development of **visual recognition AI** software in **Python**, increasing efficiency & accuracy by **25%**.
- Researched the possible integrations & benefits of STEM education curriculum packages as part of a team of interns, suggesting a proposal to reach **30+** schools in the surrounding area.

PROJECTS

Tariffix | *TypeScript, React, Vite, Tailwind CSS, MongoDB, Chrome Extension API, Gemini API, Cheerio, Git* — Apr 11, 2025 - Apr 13, 2025
- Enabled real-time tariff insights on **100K+** product listings via a **Vite-powered Chrome extension** backed by an **AI scraping pipeline** for metadata and HTS codes, winning **Bitcamp 2025's "Best use of MongoDB."**
- Delivered tariff cost estimates against official U.S. rates with under **5%** average error by comparing **AI-scraped data** to a **Gemini-powered MongoDB dataset**, automating precise calculations for end users.

SightSync | *Python, Pygame, PyAutoGUI, OpenCV, MediaPipe, Git* — Apr 5, 2025 - Apr 6, 2025
- Enabled precise head movement cursor control as measured by consistent **sub-100 ms** response times, by engineering a **Pygame** based UI and integrating **OS level** hooks via **PyAutoGUI**.
- Enabled fully **hands-free** system navigation and OS commands by developing **Python** pipelines that integrate **MediaPipe** face-mesh tracking with real-time voice command parsing, ensuring reliable voice-driven workflows.

Kmodo | *TypeScript, Next.js, React, tRPC, Tailwind CSS, Drizzle, PostgreSQL, Git* — Jan 2024 – Present
- Engineered full-stack web applications by integrating responsive user interfaces with scalable backend services, leveraging modern frameworks like **Next.js**, **tRPC**, and **PostgreSQL**.
- Self-hosted infrastructure on a **Linux VPS** with a CI/CD script for reliable deployment and extensibility.

TECHNICAL SKILLS

Languages: Python, C, C++, C#, Java, HTML, CSS, JavaScript, TypeScript
Libraries & Frameworks: Pygame, React, Next.js, Node.js, Vite, Tailwind CSS, tRPC, PostgreSQL, MongoDB
Developer Tools: Git, VS Code, Visual Studio, PyCharm, Eclipse, Unity, Vercel, Prisma, Drizzle, Figma