

Brentley Dorsainvil

954-734-3426 | dorsainvilbrentley@gmail.com | [LinkedIn](#) | [GitHub](#)

EDUCATION

University of Central Florida

Orlando, FL

Bachelor of Science in Computer Science

Expected May 2027

- **Relevant Coursework:** Data Structures and Algorithms, Object-Oriented Programming, Database Systems, Systems Software
- **Organizations:** National Society of Black Engineers (NSBE), ColorStack, KnightHacks

EXPERIENCE

Software Engineer Intern

Orlando, FL

Institute for Simulation & Training – UCF

Dec 2025 – Jan 2026

- Engineered a **Unity/C#** radiation safety training simulation for a Department of Energy grant-funded project, reducing simulated worker exposure by **10%** through real-time exposure tracking and performance analytics.
- Automated route analysis across **5 simulated routes**, comparing user paths against optimal trajectories to identify procedure improvements that reduce exposure time by up to **50%**.
- Reduced performance evaluation time by **80%** vs. manual assessment by building an analytics pipeline tracking **5+ metrics** (exposure score, distance, time, efficiency, compliance) and generating automated reports.

Software Engineer Contract

Remote

Scaling Webinars

Feb 2026 – Mar 2026

- Developed a recruiting platform supporting onboarding for **2,000+ job applicants**, reducing manual onboarding workload by **40%**.
- Designed applicant intake workflows using React and TypeScript, achieving **sub-2s page load times** with client-side form validation.
- Built a Node.js backend processing real-time job application submissions with **sub-150ms response times**, supporting high-volume applicant intake.

PROJECTS

Notify+ Monitor | *Python*

Mar 2026 – Present

- Built and operated an asyncio-based inventory monitoring platform powering a **200+ member** paid community generating **\$2K+ MRR**, delivering product alerts with **3–4s** average end-to-end latency.
- Implemented per-proxy health tracking, exponential backoff, and automatic dead-proxy removal across **50+ proxies** to sustain high-frequency inventory monitoring.
- Developed a queued alert delivery system with request pacing and automatic retries to handle rate limits during high-demand product drops.

Pooh Virtual Companion | *Python, Tkinter, Raspberry Pi 5, OpenAI, ElevenLabs*

Mar 2026

- Won **MLH Best Use of ElevenLabs** at HackUSF 2026, outperforming **80+ teams** in a 24-hour hackathon.
- Architected an event-driven Tkinter GUI using a **finite-state machine** to coordinate real-time voice interactions and animated facial states on a Raspberry Pi 5.
- Implemented an **agentic tool-calling pipeline** using the OpenAI API and structured JSON schemas, enabling real-time voice interaction and image capture through the Pi Camera.

Sentinel Utilities | *Python, Next.js, PostgreSQL, Leaflet*

Sep 2026

- Engineered a full-stack geospatial platform using **Python** and **Next.js** to identify geographic and scheduling overlaps across infrastructure projects from **3 utility providers**.
- Developed a data-processing pipeline to analyze **272 projects** from public filings, identifying **61 potential overlaps** within 25 miles and matching all **6 organizer-confirmed overlaps**.
- Integrated **PostgreSQL** and **Leaflet** to enable location-based project queries and interactive visualization of infrastructure projects and overlapping construction schedules.

TECHNICAL SKILLS

Languages: Python, Java, C, C#, JavaScript, TypeScript

Frameworks/Libraries: FastAPI, React.js, Next.js, Node.js, Tkinter

Databases: PostgreSQL, MongoDB

Cloud/Tools: AWS (S3, EC2), GitHub Actions, Firebase, Unity, Git/GitHub