Christian Lopez

(407) 280-2724 | christian.jairolopez@gmail.com | linkedin.com/in/christianjairolopez | portfolio.christianjlopez.com

EXPERIENCE

Reddit — May 2025 – Aug 2025
Software Engineer Intern — *San Francisco, CA*
- Built a **Slack application** to derive insights from **all ongoing incident channels**, exposing results via gRPC.
- Used **Python** and **Google Cloud** to build **2 AI agents**, capable of summarizing slack data and timeline analysis.
- Leveraged **Kubernetes** and **Go** to **deploy** app into a production environment, making it available company-wide.
- Used **Go** to build a **scalable real-time data pipeline**, getting **1000+** updates from Slack channels **in parallel**.
- In **Go**, built **multithreaded systems** with **mutex locks** to process Slack data queues and prevent race conditions
- Utilized **Terraform**, infrastructure-as-code, to allocate **AWS and GCP permissions** for production applications.
- Engaged in **cross-functional collaboration** with teams across the US to define requirements for internal tooling.
- Led full **Software Development Lifecycle** from design and development to code reviews, testing, and deployment.

Sonovance — Oct 2024 – April 2025
Software Engineer Intern — *Orlando, Fl*
- Developed an **AI powered ultrasound probe** at a **startup** to enhance accessibility to ultrasound technology.
- Collaborated with **Stanford University** as **first author** on an accepted abstract for the **UITC Symposium**.
- Used **Python** and **PyTorch** to train a **ML model**; predicts kidney location in real patients with **90% accuracy**.
- Utilized **Python** and **OpenCV** to extract features from 3D medical images, generating a **200 patient dataset**.

Davis Research Group — June 2024 – Dec 2024
Undergraduate Researcher — *Orlando, Fl*
- Developed a **deep learning model** capable of predicting power outages; presented at the **52nd IEEE PVSC**.
- Employed **Python**, **NumPy**, **Pandas**, and **PyTorch** to create and train a 1,000,000-parameter **neural network**.
- Used **Python** and **PyTorch** to develop an **image training pipeline** for ingesting **500gbs of satellite images**.
- Applied **Python** to analyze **4 years of CDC outage mortality data**; presented at **2024 Tohoku Conference**.
- Utilized **Linux**, **Vim**, **Slurm**, and **Bash** to automate deployments of data-intensive workloads on an **HPC cluster**.

AVT Simulation — May 2023 – Feb 2024
Software Engineer Intern — *Orlando, Fl*
- Applied **C++** and **object oriented programming (OOP)** principles to design military simulator software.
- Led **customer-facing meetings** with government clients on a **$100M contract** to present and demo products.

PROJECTS

AI Agent Market Analytics | *2025 Hacklytics @ Georgia Tech* | pitchpropel.com — Feb 2025
- Developed a **Web Application** that uses **AI** to simulate sales and generate market insights for new products.
- Created a **flexible relational database schema** in **Postgres** to efficiently store and query user data.
- Built **GenAI-powered** API endpoints with **Google Gemini**, enabling **LLM Agents** to exchange messages.
- Combined **Next.JS**, **React.JS**, **Node.JS**, and **TypeScript** to design a full-stack web application.
- Created **3 REST APIs** with **Python** and **FastAPI** which handle text and image input, hosted on **AWS EC2**.
- Implemented a **CI/CD pipeline** with **Linux**, **Vim**, and **Bash scripting** to automate deployments.
- Deployed a **dynamic web application** on **AWS EC2**, configured with **Caddy** for **domain-based routing**.

TECHNICAL SKILLS

Technologies: Go, Python, Node.js, TypeScript, React.js, Next.js, JavaScript, HTML, CSS, SQL (PostgreSQL)
Backend & Cloud: AWS (Lambda, S3, DynamoDB, API Gateway), FastAPI, MongoDB, REST APIs, Bash/CLI
AI & ML: LLM, Embeddings, Generative AI, Inference, PyTorch
Coursework: Data Structures & Algorithms, Object Oriented Programming, Parallel & Distributed Databases

EDUCATION

University of Central Florida — Aug 2020 – Dec 2026
M.S. Computer Science | ***Expected Grad:*** *Dec 2026* — *Orlando, Fl*
B.S. Computer Science | ***Grad:*** *Dec 2024*