Christian Lopez

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Education

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

Technical Skills

Languages: Python, C, C++, C#, Java, JavaScript, TypeScript, HTML, CSS, SQL (PostgreSQL)
Backend & Cloud: Golang, FastAPI, AWS (Lambda, S3, DynamoDB, API Gateway), Micro-Services, MongoDB
Infrastructure & Performance: Kubernetes, Docker, Linux, Multi-threading, Distributed Systems

Experience

Reddit May 2025 – Aug 2025
Incoming Software Engineer Intern - SRE *San Francisco, CA*
- Selected to join **Reddit's Site Reliability Engineering team** to contribute to large-scale distributed systems, using **Golang** and **Kubernetes** to support infrastructure and performance at scale for **100M+ monthly users**.

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.
- Leveraged **C#** and **object-oriented programming (OOP)** principles to develop medical imaging software.
- Utilized **Python** and **OpenCV** to extract features from 3D medical images, generating a **200 patient dataset**.
- Used **Python** to train a **machine learning model**; predicts kidney location in real patients with **90% accuracy**.
- Collaborated with **Stanford University** as **first author** on an accepted abstract for the **UITC Symposium**.

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**.
- Used **Python** to develop a **scalable backend pipeline** for ingesting **500gbs of geospatial satellite images**.
- Applied **Python** to create a **distributed data pipeline** for processing **15 years of energy grid data**.
- Employed **Python**, **NumPy**, **Pandas**, and **PyTorch** to create a 1,000,000-parameter **neural network**.
- 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 full **Software Development Lifecycle** from design and development to code reviews, testing, and deployment.
- Applied **Model-View-Controller (MVC) design principles** to structure Apache aircraft simulation software.
- Led **customer-facing meetings** with government clients on a **$100M contract** to present and demo products.
- Communicated with a **15-person cross-functional** team of developers to design military software.
- Utilized **Git for version control** while collaborating on mission-critical **C++ simulator software**.

Projects

AI Agent Market Analytics | *2025 Hacklytics @ Georgia Tech* Feb 2025
- Created a **FinTech site** that uses AI to simulate sales interactions and generate market insights for new products
- Combined **Next.JS**, **React.JS**, **Node.JS**, and **TypeScript** to design a full-stack web application.
- Created **3 REST APIs** with **FastAPI** which handle text and image input, hosted on **AWS EC2**.
- Integrated **AWS Polly** into **API endpoints** for **speech synthesis**, enabling text-to-audio conversion functionality.
- 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**.

Habit Tracker | *2024 Shell-Hacks @ FAU* Oct 2024
- Used **MongoDB, Express, React, and Node.js** to create a **Full-Stack** habit tracker app.
- Leveraged **HTML**, **CSS**, and **TailwindCSS** to design a responsive and accessible user interface.
- Created a **flexible NoSQL** database schema in **MongoDB** to efficiently store and query user data.
- Deployed site using a **Dockerized container** on **Heroku** for seamless and efficient application delivery.
- Utilized **Agile tools (Jira)** to manage the **project backlog** and set **sprint goals** for a **4 person team**.