Christian Florea

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Skills

Languages: Python • JavaScript • Typescript • C++ • C • SQL

Tools: PostgreSQL • AWS • GCP • WebSocket • Docker. • Kubernetes • React • Redux. • OpenCV

Experience

Magi Inc | Software Engineer Intern   Jan 2025 – Apr 2025 (expected)
- Building an AI travel assistant using GPT and Gemini to help **2M MAU** find hotels and vacation experiences.
- Developed a group chat platform with **WebSocket** where users can plan travel by sending social media videos.
- Extracted key frames and used **GPT 4o API** to generate **structured outputs** to build itineraries from the content.

Verkada | Software Engineer Intern   May 2024 – Aug 2024
- Improved a transcript search feature with GPT-4o to process over **100k weekly** call events with **70%** higher accuracy.
- Resolved slow responses by partitioning and parallelizing API calls, achieving a **52% reduction in p99** response times.
- Implemented moderation tools to filter human inputs and AI outputs, ensuring ethical and legal compliance.
- Designed a new UI with **React** to provide concise explanations of event relevance, improving the search process.

Relay Financial | Full Stack Software Engineer Intern   Sep 2023 – Dec 2023
- Developed a receipt manager using **AWS** and **Node** to parse and upload data from **1000+ daily** emailed receipts.
- Created a message queue with **SQS** to process the emails, improving efficiency by 40% and enhancing reliability.
- Used **Lambda** to handle compute intensive tasks such as OCR, and **SES** for return emails when errors occurred.
- Implemented Veryfi's API to improve **OCR**, resulting in receipt to transaction matching accuracy of 98%

Projects

OpenCV Ball Balancing Platform | Python, OpenCV, Firmware (C++)   Oct 2024 – Dec 2024
- Implemented **OpenCV** to achieve ball and platform detection through color-based segmentation and contouring.
- Created a **Tkinter** GUI to display real-time video feeds with overlays and options for adjusting system parameters.
- Optimized **thread synchronization** to avoid race conditions and ensure consistent data flow between processes.

OlympiHacks 1st place - Blockchain Data Storage | JavaScript, Web3   May 2023
- Implemented **Jackal Protocol** to create a HR app that backs up employee data using storage on blockchain.
- Achieved first place at the Blockchain OlympiHacks Hackathon for the Jackal sponsor prize: Devpost link.

Swim Meet Results Web Scraper | Python, OOP, Web Scraping   Mar 2023
- Created a web scraper to analyze swim meet results (500+ athletes), visualizing the data using **Matplotlib**.
- Optimized the program by adding a **caching** system to reduce the amount of data re-fetching on subsequent runs.

Education

University of Waterloo   Sep 2020 – Apr 2026 (expected)

Bachelor of Science in Mechatronics Engineering with option in Software Engineering | 3.88/4.00 GPA

Extracurriculars

Varsity and Club Swimming   2011 – Present
- Qualified for the 2020 Canadian Olympic Trials through commitment, strong work ethic, and training 15+ hr/wk.
- Exhibited leadership skills and ability to work with others as assistant team captain of the varsity team.