Christian Florea

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Summary of Qualifications

Languages: TypeScript • JavaScript • Python • C++ • C • SQL • HTML • CSS

Tools: React • Redux • Node • PostgreSQL • AWS • WebSocket • Docker • Jenkins • Cypress • RTL

Education

University of Waterloo   Sep 2020 – Apr 2026 (expected)

Bachelor of Science in Mechatronics Engineering with Minor in Artificial Intelligence | Grade: 3.88/4.00 GPA

Experience

Verkada | Frontend Software Engineer Intern   May 2024 – Current

- Developed a new intercom dashboard page to display and sort more than 100k weekly call and video events.
- Created new **React** components that utilize **Redux** for fetching and storing data; tested using **RTL** and **Cypress**.
- Developed **custom hooks** to process user, phone, and local SIP receiver IDs and return localized text.
- Built a **virtualized table** with smooth scrolling and dynamic row rendering, improving table load time by 200%.
- Integrated **Highcharts** library for data presentation, creating scalable code for future dashboards features.

Relay Financial | Software Engineer Intern   Sep 2023 – Dec 2023

- Developed an event handler 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%

ATS Corporation | Software Engineer Intern   Jan 2023 – Apr 2023

- Prototyped a full stack **React/Node** app from scratch, to replace a third-party app with concurrent user issues.
- Developed a micro service with 15+ endpoints to fetch and aggregate PLC data via OPCUA, testing with Postman.
- Employed **WebSockets** to display real-time data from the PLC, decreasing data latency time by 4x.

Molex | Internal Tools Software Engineer Intern   Sep 2022 – Dec 2022

- Developed a **Python API** with **GUI** to automate PLC, laser marker, and SQL Server comms, tripling PCB production.
- Leveraged **Docker** to containerize the executable and configured Jenkins **CI/CD** pipelines to automate the build, test, and deployment, reducing deployment time by 60%.

Projects

Blockchain Data Storage Application – OlympiHacks 1st place Jackal sponsor prize 🔗   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 Scrapper 🔗   Mar 2023

- Created a **Python** 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.

Extracurriculars and Volunteering

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.