

# Khalid Zabalawi

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## EDUCATION

### Software Engineering @Western University ☑

2021 – 2026 | Toronto, CA

Networking, Linux, Calculus 3, Operating Systems, Judo, Rock Climbing, Volleyball

## SKILLS

**Languages:** — *Python, Javascript, Java*, **Technologies:** — *React, Docker, Kubernetes, AWS, Github CI/CD, Git, PostgreSQL*

## EXPERIENCE

### Software Developer Intern, Kinaxis

Nov 2024 – present | Remote, CA

- Implemented an integration automation feature for an **FastAPI** config micro-service for a **100+ pod Kubernetes** cluster on **Azure** resulting in **13% increase in uptime** with **Python & Helm**

### Software Developer Intern, Interac ☑

May 2024 – Aug 2024 | Toronto, CA

- Build a batch API automating encryption retries for a micro-service, **eliminating 100+ manhours** a month and **processing 9 million payments** a month with **Java** on **Azure**
- Added 55+ fields to a transaction API in production **increasing data ingestion by 36%** to combat money laundering with **Docker & Java** on **Azure**

### Software Developer Intern, Canadian Tire Corporation ☑

May 2023 – Sep 2023 | Toronto, CA

- Designed & Developed a customer-facing feature (UI & API) that calculates potential **loyalty** points payments to **5 million+** concurrent web members & searching **100+ GBs in under a second** with **React, C#, and Azure**
- Decreased** production server **network loads by 11%** by implementing batch API calls
- Developed **Python** scripts to automate web API validation for migration to an **AWS** micro-service cloud system, **eliminating 72 man-hours** a month
- Used Terraform to auto-deploy a web API on Azure, **eliminating potential integration costs by 15%**

### Co-Founder, PLNT.AI ☑

Oct 2020 | Waterloo, CA

- Won **2nd in Canada @NASA** Hackathon, built startup with 5 employees serving multiple cities with satellite imaging software, admitted into Conestoga Venture Lab, Accelerator Center, 4+ awards

### Junior Instructor, Western University

Jun 2022 – Sep 2022 | London, CA

- Presented workshops & ran activities for the Grade 6-9 Coding camp involving **Python**, Java, Circuits & Arduino

### Research Engineering Intern, Western University ☑

Oct 2019 – Mar 2020 | London, CA

- Presented a new method for testing various iterations of a gyro sensor (with **Python & React**) to integrate into a lightweight rehabilitation wearable assistive device, **significantly decreasing** the design cycle.

## PROJECTS

### FLOW, Co-founder ☑

2024 – present

- Scraping 200+** Canadian emergency room wait times every hour totaling 146k a month to centralize wait times
- Designed and developed an infrastructure that processes 200 concurrent calls subsecond at peak with Python (**FastAPI**), Playwright, PostgresDB

### Remote Cloud-Based Earthquake Detection, Paper Author ☑

2024

- Led collaboration with labs to train model & **publish paper** @Canadian Undergraduate Conference on AI ☑
- Used a **Python FastAPI** to expose the model and scaling to **100GBs per cloud dataset** upload for other labs to test

### Altima, @Hack the North 2022 (largest North American hackathon) ☑

2022

- Developed a **full-stack** application with a **React Javascript front-end** that helps users decide whether Solar is worth it
- Python flask backend** that scales to 10k users in **36 hours** and containerized it using **Docker**

### Brain Canada Research Software, Developer Lead

2021

- Developed a full-stack **Python FastAPI & React & PostgresDB** program that matched researchers from Brain Canada to applicants **making the process 10x faster** & eliminating bias hosted on **AWS**

### CartKeep, @HackWestern ☑

2022

- A **full-stack application** that tracks your food supply and detects possible spoilage using a **humidity sensor**
- Used **NodeJS's Express** for the backend **API** that scraps barcode-codes & displays on a **React Front-end**