Isaac Abell

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EDUCATION

University of Toronto

Toronto, Canada

B.Sc. Computer Science, Statistics, CGPA: 3.50

Sep. 2022 - May 2026

Experience

iXp Intern - Full Stack Developer

May 2024 - Present

SAP

Toronto, ON, Canada

- Built a real-time user engagement tracking system by fine-tuning a pre-trained ResNet model using transfer learning in PyTorch. Deployment is planned for SAP Experience Centers.
- Led a team of interns to build SAP Demo Environment 2.0, a web app used by 20,000+ internal users and partners to access and present SAP solution demos in a unified, interactive platform.
- Developed the front-end of SAP Demo Environment 2.0 using TypeScript/React.
- Developed a Node.js REST API layer to refactor poorly structured backend data, enabling smoother integration with the front-end.

Research Assistant (part-time, for course credit)

Sep. 2024 – May 2025

University of Toronto Intelligent Adaptive Interventions Lab

Toronto. ON. Canada

• Built and deployed a full-stack web app to test the lab's AI teaching assistant, developing the FastAPI back-end, React front-end deployed via AWS Amplify, and hosting backend services on AWS EC2/S3 to enable experiments.

Software Engineering Intern

May 2023 – August 2023

Appex

Boston, MA, USA

- Built and deployed an app review summarization tool using the OpenAI API, leveraging prompt engineering for high-quality summaries, with automated monthly execution via AWS CloudWatch and Lambda, and notifications through Slack and AWS SES.
- Reduced AWS costs by \$2,500/month by replacing a macOS EC2 instance used for APNs token signing with a Linux-based implementation using portable credentials.

Software Engineering Intern

May 2021 – August 2021

Guavy

Victoria, BC, Canada

- Created Puppeteer scripts to scrape websites and update Guavy's database automatically.
- Built automated tests using Cypress to verify website functionality

PROJECTS

Commute Rental Listings | GitHub Repo | Live Site

- Developed a full-stack rental search platform where users must specify a destination (e.g., work or school) and can filter listings based on commute time, with a React front end and serverless backend
- Engineered a hybrid data pipeline that scrapes real estate listings locally to bypass IP address blocks, storing data in AWS S3 for downstream processing.
- Designed and deployed a serverless backend using AWS Lambda and a SQL database, which automatically updates when new data is available in S3 and exposes a REST API for real-time filtering.
- Technologies Used: Python, SQL, JavaScript, React, Docker, GitHub Actions, AWS

Thestudentbase

- Worked with a team of students to develop an online marketplace web app for University of Toronto students.
- Built the majority of the front-end using JavaScript/React, deployed via AWS Amplify.
- Implemented Spring Boot REST APIs for product listings and set up CI/CD pipelines using GitHub Actions for automated testing and deployment.
- Technologies Used: Java, SpringBoot, Javascript, React, Github Actions, AWS

TECHNICAL SKILLS

Languages: Python, JavaScript, TypeScript, Java, SQL (PostgreSQL)

Frameworks: React, Node.js, FastAPI, Spring Boot

Libraries: pandas, NumPy, Matplotlib, scikit-learn, PyTorch, OpenCV

Developer Tools: AWS(EC2, Lambda, S3, RDS, Amplify), Git, Docker, GitHub Actions