

# Isaac Abell

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## EDUCATION

<b>University of Toronto</b> <i>B.Sc. Computer Science, Statistics</i>	Sep. 2022 – May 2026
	CGPA: 3.53

## TECHNICAL SKILLS

**Languages:** Python, JavaScript, TypeScript, Java, SQL (PostgreSQL)  
**Frameworks:** React, Node.js, FastAPI, Spring Boot  
**Libraries:** Pandas, NumPy, Matplotlib, Scikit-learn, PyTorch, Transformers, OpenCV  
**Developer Tools:** AWS(EC2, Lambda, S3, RDS, Amplify), GCP(Vertex AI), Firebase, Git, Docker, GitHub Actions

## EXPERIENCE

<b>iXp Intern - Full Stack Developer</b> <i>SAP</i>	May 2024 – Present Toronto, ON, Canada
<ul style="list-style-type: none"><li>Developed a Vision Transformer (ViT) model using transfer learning to classify real-time user engagement, achieving <b>90% accuracy</b> with planned <b>global deployment</b> across 18 SAP Experience Centers in 2026.</li><li>Built <b>data extraction, cleaning, and labeling pipelines</b> to prepare datasets for computer vision model training, ensuring high-quality inputs for real-time user engagement classification.</li><li>Collaborated with a team of 5 interns to build <b>SAP Demo Environment 2.0</b>, a platform used by <b>20,000+</b> SAP Employees and Partners to showcase SAP solution demos; developing the front end with <b>TypeScript/React</b> and a <b>Node.js REST API</b> layer to organize and serve backend data.</li></ul>	
<b>Research Assistant (part-time, for course credit)</b> <i>University of Toronto Intelligent Adaptive Interventions Lab</i>	Sep. 2024 – May 2025 Toronto, ON, Canada
<ul style="list-style-type: none"><li>Developed a <b>full-stack web app</b> with end-to-end deployment to test the lab's <b>AI teaching assistant</b>, building a <b>FastAPI backend</b> and <b>React frontend</b>.</li><li>Deployed the backend on <b>AWS EC2/S3</b> and the frontend via <b>AWS Amplify</b>.</li><li>Reworked the underlying GPT-based model to make <b>queries concurrently</b>, improving processing speed by <b>80%</b>.</li></ul>	
<b>Software Engineering Intern</b> <i>Appex</i>	May 2023 – August 2023 Boston, MA, USA
<ul style="list-style-type: none"><li>Developed and deployed an <b>app review summarization tool</b> that automatically generates monthly reports... Leveraged the <b>OpenAI API</b> with prompt engineering, integrated AWS services (CloudWatch/Lambda for scheduled execution, SES for email notifications), resulting in a <b>20% productivity increase</b>.</li><li>Reduced <b>AWS costs by \$2,500/month</b> by replacing a macOS EC2 instance used for APNs token signing with a <b>Linux-based implementation</b> using portable credentials.</li></ul>	
<b>Software Engineering Intern</b> <i>Guavy</i>	May 2021 – August 2021 Victoria, BC, Canada
<ul style="list-style-type: none"><li>Developed Puppeteer scripts to scrape websites, enhancing the volume and quality of data in Guavy's databases.</li><li>Created Cypress tests to validate website functionality prior to deployment, ensuring a reliable user experience.</li></ul>	

## PROJECTS

<b>Rental Listings Website with Commute Filter</b>   GitHub Repo   Live Site	
<ul style="list-style-type: none"><li>Engineered a <b>full-stack rental search platform</b> with a React frontend and <b>serverless backend</b>, enabling users to search and filter listings by <b>commute time</b>.</li><li>Built a <b>hybrid Python data pipeline</b> to scrape real estate listings locally, store them in AWS S3, and <b>automate updates</b> via a serverless backend (AWS Lambda + RDS) exposing a REST API for real-time filtering.</li><li>Technologies: Python, SQL, JavaScript, React, Docker, GitHub Actions, AWS</li></ul>	
<b>Artificial Isaac: Personalized AI Chatbot</b>   GitHub Repo	
<ul style="list-style-type: none"><li>Fine-tuned Qwen 2.5 (7B) on personal WhatsApp and Instagram chats to create a chatbot that mimics my communication style.</li><li>Integrated <b>Retrieval-Augmented Generation</b> using ChromaDB for accurate personal knowledge retrieval.</li><li>Technologies Used: Python, PyTorch, Transformers, ChromaDB, BitsAndBytes, LoRA</li></ul>	