

ABDULLAH ALMAINI

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EDUCATION

University of Toronto

Honours Bachelor of Science in Computer Science, Mathematics & Statistics | PEY Co-op

Mississauga, ON

Sep 2022 – Present

- **Coursework:** Software Design, Software Tools & Systems Programming, Data Structures & Analysis, Software Engineering
- **Clubs:** Google Developer Student Club, University of Toronto Machine Intelligence Student Team

WORK EXPERIENCE

ModiFace (L'Oréal)

Toronto, ON

MLOps Intern

May 2025 – Present

- Engineered **production-scale generative AI applications** using **Stable Diffusion models**, serving beauty recommendation features to **millions of users** across L'Oréal's digital platforms
- Architected **distributed ML inference pipelines** with **microservices architecture**, reducing model serving latency by **40%** through optimized preprocessing, batching, and caching strategies
- Built and deployed **containerized ML services** using **Docker** and **GCP** with **automated CI/CD pipelines**
- Collaborated with **cross-functional teams** of product managers and designers to integrate AI features into consumer applications, following **agile development practices**

AIP Labs

Mississauga, ON

Machine Learning Engineer Intern

Jun 2024 – Sep 2024

- Architected **end-to-end ML pipeline** processing **200,000+ medical images**, delivering **1.5x improvement** in precision and recall through optimized data processing workflows
- Engineered **image similarity algorithms** leveraging **cosine similarity** and advanced feature extraction techniques for intelligent data curation and quality enhancement
- Developed production-ready **image classification models** using **ResNet architecture**, achieving exceptional **98%+ precision and recall** across 3-way classification tasks
- Implemented robust ML solutions using **PyTorch**, **PyTorch Lightning**, and **Scikit-Learn** for scalable model development, with **Pandas & NumPy** for comprehensive data analysis

PROJECTS

C++ Neural Network | C++

May 2025

- Implemented **neural network from scratch** in pure **C++** without external frameworks, demonstrating deep understanding of ML fundamentals
- Trained models on **MNIST datasets** using raw mathematical operations and implemented backpropagation algorithms

AI-Powered Scheduling Web Application | React.js, Next.js, Node.js, PostgreSQL, Claude API

Jan 2025 – April 2025

- Built intelligent scheduling assistant integrating **Claude API** with **NLP capabilities** for automated schedule optimization
- Developed responsive **frontend** using **React.js/Next.js/TypeScript** and scalable **microservices backend** with **Node.js**
- Architected **PostgreSQL/SQLite databases** using **Prisma ORM** with optimized schemas and queries for user management
- Created **RESTful APIs** for seamless integration and led **cross-functional team of 7 developers** using **Agile/Jira**

Chatbot Resume Website | Three.js, Express.js, Claude API, JavaScript

Ongoing

- Developing interactive **personal portfolio website** with integrated **AI chatbot** for dynamic resume exploration and Q&A
- Incorporated **3D models** using **Three.js** to enhance user experience and visual appeal
- Implementing **LLM integration** for natural language interactions about experience, skills, and project details

Deerhacks 2025 Hackathon Project | Next.js, React.js, REST APIs, Supabase

Feb 2025

- Created **full-stack Next.js app** for recipe generation in **36 hours** with team of 4, demonstrating rapid development skills
- Integrated **REST APIs** for automated recipe creation and grocery list generation with **Supabase authentication**

TECHNICAL SKILLS

Languages: Java, Python, C, C++, C#, JavaScript, TypeScript, HTML, CSS

Frameworks & Libraries: React.js, Next.js, Node.js, PyTorch, PyTorch Lightning, Scikit-Learn, OpenCV, NumPy, Pandas, Matplotlib

Tools & Technologies: Git, Docker, PostgreSQL, Prisma ORM, REST APIs, Linux, OpenAI API, Heroku, Jira