DearHassle Resume

Machine Learning Engineer

Portfolio: anishreddyk.com
github.com/Anish-Reddy-K
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Python, C/C++, PyTorch, Tensorflow, MLX, scikit-learn, NumPy, Pandas, FastAPI, Flask, SQL, NoSQL
NLP, LLMs, Neural Networks, Transformers, Model Development, Training, Fine-tuning, Optimization,
Evaluation, RAG, Vector Databases, Vector Embeddings, Prompt Engineering, Hyperparameter Tuning
Git, Docker, MLFlow(CI/CD), Azure, AWS, Hugging Face, Ollama, TinyML, Langchain, LlamaIndex

PROFESSIONAL EXPERIENCE
Machine Learning Engineer Apr 2024 — Present
OCAS Waterloo, ON
• Engineered end-to-end AI advisor from prototype to beta using Llama & Azure OpenAI to enhance college program discovery.
• Built semantic search pipeline for 10,000+ college programs using BERT embeddings & Azure Vector DB, delivering 3x more
relevant matches & reducing search latency by 85%.
• Fine-tuned Llama 3 8B using LoRA on a student-program data set, delivering a 60% improvement in recommendation accuracy.
• Scaled recommendation system from Llama 3 8B to Azure OpenAI, achieving 3x accuracy via prompt optimization & A/B tests.
• Architected ML pipeline with Docker & Azure, implementing methods to address bias and fairness for responsible AI deployment.
• Designed real-time user profiling through optimized LLM prompts & validation chains, powering contextual recommendations.
Designed containerized microservices using Docker and Azure, enabling modular and scalable deployment with safety.
• Designed real-time user profiling through optimized LLM prompts & validation chains, powering contextual recommendations

AI/ML Engineer Sep 2023 — Apr 2024
SMART Centre Waterloo, ON

• Fine-tuned & optimized a dialogue model for microcontroller deployment, achieving natural conversations with minimal latency.
• Optimized trained SLM for edge deployment using quantization & pruning, reducing inference latency by 80% on microcontroller.
• Built an efficient inference pipeline for conversational SLM on embedded system, enabling real-time natural dialogue processing.

Executive Lead Nov 2023 — Present
Google Developer Groups - On Campus Waterloo, ON
• Organized events and strategic initiatives for a community of 1,000+ members, driving significant growth and engagement.
• Conducted TensorFlow workshops & hands-on projects, enabling 200+ students to understand & build impactful AI applications.

NOTABLE PROJECTS Project Portfolio
Aqua Pinion | Drowning Detection and Prevention Chest Strap - SVM, Sensor Fusion, TinyML, scikit-learn, Python, C/C++, CAD
• Engineered a sensor-driven wearable using ML to detect drowning with 95% precision and deploy a life-saving inflatable.
• Developed a custom SVM classifier for microcontroller using sensor fusion, enabling real-time drowning detection & prevention.

Embeddium | Vector Embedding Desktop Application - PyQt5, Transformers, GPU Optimization, Python, Hugging Face
• Built desktop application to generate vector embeddings from multiple data formats with automated model selection.
• Engineered multi-format pipeline with GPU acceleration & threading, enabling rapid CSV/JSON to FAISS/HDF5 conversion.

Typez | AI-Driven Typing Improvement Tool - Local models, scikit-learn, PyTorch(Win), MLX(Mac), Python, Pandas, SQLite
• Built an AI-powered typing analyzer that tracks user patterns & generates personalized exercises targeting specific weaknesses.
• Implemented a keystroke pattern recognition system using ML, enabling a 30% average improvement in typing proficiency.

ACTIVITIES & LEADERSHIP

Conestoga Computing Society | President & Founder • Founded a 300-member CS community, hosting 10+ events/workshops to enhance skills and foster campus-wide collaboration.

ConHacks - Hackathon | President & Co-Founder • Initiated, planned, and executed a 130-participant hackathon, managing logistics, marketing, and operations to drive innovation.

Peer-Assisted Learning Leader & Tutor • Led tutoring sessions on C Programming for 25+ students in DSA, OOP, and core CS topics, improving overall grades by 45%.

Atal Tinkering Lab | Student Lead
Collaborated with 150+ students on IoT and ML projects, winning 4 awards at national and international science & tech expos.

EDUCATION

Bachelor of Computer Science (Honours) Conestoga College, Waterloo, ON

Aug 2026 (Expected)

GPA: 3.84

AWARDS AND ACHIEVEMENTS

Mentor: Hack The North 2024, Hawk Hacks, GDSC Hacks | Judge: GDSC Hacks, ConHacks | Winner: HackThe6ix | CSI Service Award |
Member of Program Advisory Committee: School of Applied Computer Science and IT | Guest Speaker: GDSC, Queens University |
Google DevFest Volunteer | Co-op Peer Mentor | Student Innovator of the Year: Atal Labs | Gold Medal: FGSI | NIRD RISC: 1st Place |