ARMAAN SINGLA

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Education

Queen's University   **Kingston, ON**
Bachelor of Applied Science in Computer Engineering (AI Stream), Smith Certificate in Business   *Class of 2028*
- Graham Award, Chris Hadfield Bursary, John W. Award, William S. McMath Award in Applied Science

Professional Experience

Smith Engineering   **Kingston, ON**
Teaching Assistant   *Fall 2025*
- Instructed students on C development, covering efficient algorithms, syntax, and debugging techniques
- Supervised a body of **800 students** through assistance with labs and grading code to enhance learning outcomes

Scotiabank   **Toronto, ON**
Data Science Intern   *Summer 2025*
- Built a Python and SQL pipeline analyzing **100k+ NPS records** with **>90% accuracy**, reducing manual review by **100+ hours**
- Used **Gemini** LLM with custom prompt engineering to classify feedback at scale, saving teams time and uncovering key customer pain points
- Completed deliverables **5 weeks early**; designed additional tests and resolved data pipeline tickets with on-call engineers
- Created dashboards and documentation in **BigQuery** and Confluence, equipping leadership with insights that supported faster service recovery and improved customer experience

Home Trust Company   **Toronto, ON**
Data Science Intern   *Summer 2024*
- Built an NLP classifier in Python and SQL to process **50k+ reviews**, ranking issues by impact and cutting triage time by **70%**
- Deployed LLaMA to generate summaries across **10+ categories**, surfacing complaint drivers for faster resolution
- Automated pipelines for extraction, cleaning, and categorization, cutting **200+ analyst hours per quarter** and **improving accuracy by 35%**
- Audited **150+ PowerBI reports**, migrating **60% into production** and reducing reporting inefficiencies by **$250k annually**

GuestLogix   **Toronto, ON**
Software Engineering Intern   *Winter 2024*
- Increased error detection rate by **40%** through the development of **3 dashboards** monitoring **12 APIs** over **4 environments**
- Collaborated in an agile startup, using Atlassian tools to manage workflows and deliver demos to **C-Suite** executives

Extracurricular Experience

QMIND - Queen's University Artificial Intelligence Organization   **Kingston, ON**
Machine Learning Developer   Oct *2024 – 2025*
- Engineered **YOLOv5** object detection pipelines with custom augmentation and hyperparameter tuning as part of a team
- Deployed optimized inference on NVIDIA Jetson with TensorRT, **achieving 32 FPS** and improving **detection precision by 27%**
- Presented findings to **150+ delegates** at an artificial intelligence conference (CUCAI)

QKRT – Queen's Knights Robotics Team   **Kingston, ON**
Project Manager   *2024 – Present*
- Developed low-latency drive control algorithms in C++ and ROS2, integrating PID controllers with IMU and encoder fusion for **sub-50ms response times**
- Designed motion planning pipeline with trajectory generation and kinematic constraints, **reducing wheel slip error by 18%** on RoboMaster robots

Projects & Open Source Experience

PR Pilot | [Full-Stack AI Code Review Platform](#) | *Python, FastAPI, Pydantic, scikit-learn, GitHub API, Docker, React, SQLite*
- Built a PR risk platform using GitHub diffs with feature extraction and a Random Forest model, served via FastAPI, achieving an AUC score of 0.84
- Delivered a React/Vite dashboard with Dockerized API and CI, running inference in **6ms p50 / 110ms p95**

Walking vs. Running Classifier | Human Activity Recognition System | *Python, PyQt5, Pandas, HDF5, Logistic Regression*
- Engineered a human activity recognition system using accelerometer signals and logistic regression, achieving **92% accuracy**
- Built a PyQt5 desktop app with HDF5 storage and Matplotlib for **real-time detection** and analysis of streaming motion data.

Technical Skills and Interests

Languages: Python, C/C++, JavaScript/TypeScript, SQL, Java, Bash, HTML/CSS, Assembly, Verilog
Frameworks/Libraries: Pandas, NumPy, SKLearn, PyTorch, React, Node.js, Express, Bootstrap, Redux, Matplotlib
Tools: AWS Services, Git, VSCode, Grafana, Qt Creator, JetBrains Suite, Office 365, LLMs, Android Studio, Tkinter