Abaan Noman

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Education

Carleton University **Expected Graduation: December 2026**
Honours Bachelor of Computer Science | Minor Math *Ottawa, ON*
- **GPA: 3.87/4.0**
- **Relevant Coursework:** Data Structures and Algorithms, Object-Oriented Programming, Software Engineering, Discrete Math, Systems Programming, Database Management Systems

Work Experience

HBO **September 2025 – Present**
Machine Learning Engineer Intern *Ottawa, ON*
- Designed and deployed a dynamic **EC2** autoscaling system for **CI/CD** workloads, reducing idle compute usage by **45%** and saving over **$8,000/month** in AWS costs
- Trained ML models using **Python** and **scikit-learn** to forecast compute load with **90%+** accuracy, cutting average queue times from 12 minutes to **under 2 minutes**
- Automated resource scaling every 30 minutes across Linux, Windows, and macOS environments, increasing EC2 utilization to **92%+**
- Developed **Grafana** dashboards to visualize EC2 usage, job queue lengths, and scaling behavior in real time for continuous monitoring and optimization

Warner Bros. Discovery **May 2025 – August 2025**
Software Engineer Intern *Ottawa, ON*
- Engineered a **Typescript**-based build retention enforcement tool to clean up over **44,000** pull request builds per month in **JFrog Artifactory**, leading to a **65%** reduction in artifact storage usage
- Reduced artifact storage from **140TB** to **14TB** by automating nightly cleanup with **GitHub Actions** and **AWS EC2**
- Enabled cost savings of **$11,500+** per month by cutting cloud storage overage fees by **65%** through the scheduled deletion of outdated builds
- Optimized storage query logic and parallelized lookup workflows, reducing query time by over **99%** from more than **2 hours** to under **1 minute** per run

Carleton University **Sep 2024 – Dec 2024**
Teaching Assistant - Calculus *Ottawa, ON*
- Facilitated the learning of **100+** undergraduate students by conducting **weekly** tutorials and providing one-on-one support during office hours

Projects

CUExaminer | *Website* | *Source Code* **ReactJS | Spring Boot | PostgreSQL | Docker**
- Developed and deployed a full-stack web application that enhanced academic experiences of **700+ Carleton University students**
- Utilized **PostgreSQL** for data storage, **Spring Boot** for a **RESTful API** backend, and **ReactJS** for the user interface
- Hosted the application on **AWS** as an **EC2** instance, enabling seamless deployment and scalable infrastructure

DataWhisk | *Source Code* **Python | NodeJS | PyTorch | Scikit-learn | Playwright**
- Built an end-to-end sentiment analysis pipeline using **BERT**, **PyTorch**, and automated web scraping using **NodeJS** and **Playwright**, increasing bakery sales by **10%** and reducing ingredient costs by **14%**
- Streamlined data processing and visualization with **Pandas** and **scikit-learn**, saving **15+** hours/month and enabling insights from **1,350+** customer reviews

Ligalytics | *Website* | *Source Code* **Pandas | Spring Boot | Python**
- **Scraped** and analyzed **450+** soccer players stats using **Python** and **Pandas**, integrating them into a **Spring Boot** app

Technical Skills

Languages: Python, Java, Go, TypeScript, JavaScript, C, C++, SQL

Developer Tools: AWS (EC2, S3, DynamoDB), GitHub Actions, Docker, Grafana, JFrog Artifactory, Git, Jira, Postman

Libraries/Frameworks: PyTorch, scikit-learn, Pandas, ReactJS, NextJS, NodeJS, Spring Boot, PostgreSQL, OpenCV