Aziz Zayed

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EDUCATION

McGill University   **Montreal, QC**
Bachelor of Software Engineering – **GPA 3.96/4.0**   *Sep. 2020 – Dec. 2024*

- Dean's Honour List (top 10% of my cohort)
- Class of Engineering 1953 & 1975 Scholarships
- Engineering Faculty Award
- McGill Engineering Excellence Scholarship

PUBLICATIONS

Zayed, Abd-El-Aziz and Dubach, Christophe (2024). *"DialEgg: Dialect-Agnostic MLIR Optimizer using Equality Saturation with Egglog."* Proceedings of the 23rd IEEE/ACM International Symposium on Code Generation and Optimization (CGO 2025).

EXPERIENCE

McGill University CASL Lab   **Montreal, QC**
Compilers Undergraduate Researcher under Prof. Christophe Dubach   *May – Dec. 2024*

- Designed DialEgg, a novel tool for dialect-agnostic **MLIR** optimization using equality saturation
- Evaluated DialEgg with use cases, demonstrating optimization capabilities and versatility
- First-author of a paper accepted to **CGO 2025**, to be presented in March 2025

Morgan Stanley   **Montreal, QC**
Data Science Intern   *May – July 2023*

- Built state-of-the-art **machine learning models** to detect anomalous or fraudulent transactions
- Enhanced security measures against fraud for hundreds of clients
- Collaborated with clients and stakeholders to refine and optimize security strategies

NVIDIA   **Toronto, ON**
Software Engineer Intern - Omniverse   *Aug. – Dec. 2022*

- Created nodes for **OmniGraph**, the compute and data flow engine for Omniverse, improving ease-of-use
- Tested nodes for ActionGraph compute graph, increasing code-coverage by 20%
- Collaborated cross-functionally with various **UX stakeholders** and engineers to plan OmniGraph design changes

Amazon   **New York, NY**
Software Development Engineer Intern - Supply Chain Optimization   *May – Aug. 2022*

- Hosted risk assessment **ML models as services** to catch risky buys from our vendors in the supply chain
- Reduced model request latency by 35% compared to previous hosting solutions
- Automated the ML model deployment cycle with Amazon SageMaker, making re-deployment instant with **IaC**

Amazon Web Services   **San Francisco, CA**
Software Development Engineer Intern - Deep Engine   *May – Aug. 2021*

- Contributed to a state-of-the-art **deep learning** library, DJL, used in production by Amazon and Netflix
- Improved DJL's support for the GAN deep learning framework used to create generative models from data
- Created intuitive examples to demonstrate the capabilities of GANs with DJL, improving the **user experience**

SKILLS

Programming Languages: Java, Python, C/C++, Rust, OCaml, Bash, LLVM IR, MLIR

Developer Tools & Platforms: Git, Docker, Gradle, CMake, AWS, Linux/Unix

Libraries/Frameworks: Spring Boot, Deep Java Library (DJL), PyTorch, PostgreSQL, Pandas

Relevant Courses: Compiler Design, Parallel Computing, Database Systems, Operating Systems, Distributed Systems, Computer Networks, Applied Machine Learning, Computer Vision, Algorithm Design, Competitive Programming