

Nathalie Jeans

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EDUCATION

- **Carnegie Mellon University** Pittsburgh, PA
Bachelor of Science in Electrical and Computer Engineering; GPA: 3.63 *Aug. 2020 – May. 2024*
Society of Women Engineers (Collegiate Member), Women in ECE, Engineers Without Borders, Lunar Gala Fashion Show, Kappa Alpha Theta Booth Design Committee.
- **TFS – Canada’s International School** Toronto, Canada
Advanced Bilingual International Baccalaureate Diploma *Sept. 2016 – May. 2020*
Articles featured in Medium’s Towards Data Science and Data Driven Investor publications as well as the Practical AI: Machine Learning and Data Science podcast.

RELEVANT COURSEWORK

Data Structures and Algorithms	Intro to Computer Systems	Circuits and Analog Devices
Ethics of Lethal Autonomous Weapons	Discrete Mathematics	Signals and Systems
Matrices and Linear Transformations	Probability Theory	Integral Calculus

EXPERIENCE

- **Brookfield Asset Management** New York, NY
Investments Intern *Jun. 2022 – Present*
 - **Python:** Built monitor to provide a snapshot of current portfolio, generating logic from investment guidelines and merging datasets from Bloomberg, Aladdin Enterprise, and Clearwater Analytics.
 - **Financial Modeling:** Originate models to allocate assets in line with yield objectives and AUM maximization.
- **Carnegie Mellon Computer Science Academy** Pittsburgh, PA
User Experience Designer, Content Intern *Jan. 2021 – May. 2022*
 - **Figma:** Designed computer science platform for over 100,000 students from 1,000 schools across the world.
 - **Content Creation:** Wrote interactive, graphics-based programming exercises in Python for all levels.
 - **Teaching:** Translated curriculum to French and taught professional development sessions across North America.
- **Coralus (SheEO)** Toronto, CA
RadGen Program Developer *Mar. 2017 – May. 2020*
 - **Funding startups:** Co-founded a program within Coralus, hosting hour-long weekly sessions with 60 high school students participate in the funding cycle of womxn-led ventures.
 - **Research:** Created database of over 100 BIPOC women and non-binary entrepreneurs in line with UN SDGs.
- **Integrate.ai** Toronto, CA
Machine Learning Scientist Intern *July. 2019 - Aug. 2019*
 - **Metric Calculation:** Developed an ML model to quantify customer centricity of an airline’s business strategy.
 - **Data Privacy:** Initialized long-term vision for Trusted Signals Network (TSN) product, which uses strictly non-PII data to predict customer needs in real time.

PROJECTS

- **Dynamic Memory Allocator:** A dynamic heap-based malloc and free implementation to minimize fragmentation with a throughput of 10,412 Kops per second and 74.5% memory block utilization score.
- **Cache Web Proxy:** Proxy simulation serving as an intermediary between client and server by accepting connections, forwarding to server, and sending back information to client; includes cache and concurrency considerations.
- **C0 Virtual Machine:** Virtual Machine for a C-like programming language that interprets bytecode instructions and compiles accordingly based on the Java Virtual Machine and Low Level Virtual Machine compiler backends.
- **Unix Shell:** Simple linux shell that supports job control and I/O redirection using signals and process control.
- **Cache Simulator:** Reproduces behaviour of hardware cache memory with hits, misses, and evictions. Includes an optimized matrix transpose function optimized for cache performance.
- **Used Uniform Sales Application:** Automated transactions and student account billing increasing accounting efficiency by 30% and reducing processing time by 25%.

SKILLS

- **Languages:** Python, C, SQL, Java, HTML, CSS **Other:** Arduino, Excel, Linux, Soldering, Breadboarding