

Geoffrey Meric

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EDUCATION

McGill University

Sep 2020 - May 2024

Bachelor of Science in Computer Science

Montreal, Canada

- GPA 4.00/4.00, Judie Rimer merit scholarship recipient
- Relevant courses: Algorithms & Data Structures, Operating Systems, Databases, Applied Machine Learning

TECHNICAL SKILLS

Languages: Python, JavaScript/TypeScript, C++, Java, C, HTML/CSS, SQL, Bash

Frameworks and Libraries: Node.js, Express.js, Jest.js, pandas, NumPy, Qt, MapReduce, scikit-learn

Technologies: Git, shell scripting, REST APIs, GraphQL, Cloud Computing (AWS, GCP), Docker, Jira, CI/CD

EXPERIENCE

Software Development Intern

May 2023 - Aug 2023

Autodesk

Montreal, Canada

- Implemented real-time logging infrastructure in Python within an Autodesk Maya plug-in which allows users to complete animation and rendering jobs through a Node.js-based cloud computing platform
- Engineered new workflows in the plug-in allowing for an approximately 3x increase in job submission throughput
- Introduced new UI elements for the plug-in using the Qt framework through PyQt, enhancing the user experience
- Developed a Command Line Interface (CLI) utilizing the Litr2 TypeScript library to enable simultaneous live monitoring of rendering job progress and automatic downloading of job outputs and logs as they're generated
- Designed a comprehensive Jest.js test suite to ensure robust validation of CLI outputs and downloads

Software Engineering Intern

May 2022 - Aug 2022

Procter & Gamble

Geneva, Switzerland

- Developed a Python documentation tool to programmatically generate visualizations of the Pampers Customer Data Platform (CDP) architecture by interfacing with Segment's API via GraphQL, generating graphs using D3.js
- Deployed a GitHub Actions workflow configured using YAML to sync CDP architecture changes in documentation
- Implemented a monitoring framework for Braze Customer Relationship Management (CRM) platform operations by creating Python Airflow-automated data pipeline on Google Cloud Platform, interfacing with Braze REST APIs to fetch user change data and loading it to BigQuery, allowing for improved incident tracking and response capability
- Created a web app with Node.js and Express.js to automate CRM operations by leveraging Braze REST APIs, used as a proof of concept to design and send ad-hoc digital marketing campaigns in 20+ markets

Software Development Intern

Jun 2021 - Aug 2021

Teqoya

Paris, France (remote)

- Implemented data analysis capabilities in JavaScript and generated interactive graphs using Chart.js for a live air quality sensor data visualization web application used to test the efficacy of air purification devices

PROJECTS

Quantitative Trading Algorithm Implementation | Python, QuantConnect

- Implemented and backtested an open-interest based trading strategy in Python on QuantConnect, leveraging insights from a finance research paper on using options open interest data to predict future equity prices

Chess Engine | C++, Artificial Intelligence

- Created a chess engine in C++ using the minimax algorithm with alpha-beta pruning to search the game tree

Latent Semantic Analysis-based document query tool | Python, NumPy, scikit-learn, Natural Language Processing

- Leveraged Singular Value Decomposition to query documents based on a reference document or search prompt

Chrome Extension - RateMyProfs McGill | JavaScript, HTML/CSS

- Published JavaScript Chrome extension linking professor *ratemyprofessors.com* profiles in course selection webpages

Rudimentary Operating System | C

- Created a basic operating system in C featuring a command shell, process scheduling and memory management
- Implemented demand paging memory management with page fault handling through LRU page replacement
- Designed a process scheduler using a Process Control Block queue to enable various scheduling policies