Chaimaa Khal

📞 514 726 9098   @ khalchaimaa20@gmail.com

Education

POLYTECHNIQUE MONTRÉAL
BS in Software Engineering
- 3.9/4.0 GPA
- Excellence list

Links

- GitHub **cka-y**
- Linkedin **chaimaa-khal**

Coursework

GRADUATE
Web Development
Software Quality
Algorithmic and Data Structure
Data Science
Big Data
Statistical Theory and Methods
Artificial Intelligence
Reinforcement Learning
Machine Learning
Computer Vision
Swarm Intelligence
Metaheuristics
Video Game

Skills

PROGRAMMING
Python • R • C/C++ • HTML/CSS •
JavaScript • SQL • TypeScript • Java •

MISCELLANEOUS
Shell • LaTeX • Jenkins/Teamcity •
Microsoft Office • AWS • Git

Honors

EXCELLENCE SCHOLARSHIP
Polytechnique de Montreal
Awarded to students who have great
academic records upon acceptance
to an engineering program.

Experience

SOFTWARE DEVELOPER
Morgan Stanley
📅 2021 – 2023 (Today)   📍 Montreal, CA
- Delivered significant improvements to the codebase.
- Collaborated closely with UI developers to successfully introduce new features.
- Designed and developed automation solutions to optimize productivity.
- Acted as release manager, overseeing the timely and accurate deployment of software releases.
- Developed internal tools using Python Flask and Angular TS, enhancing team efficiency and effectiveness.

Keywords: Java, C++, Python, Perl, Finance, SQL, Unit Testing, MQ, Unix, Backend Development, Agile, Jira, Jenkins, BitBucket

AUGMENTED REALITY INTERN
Bombardier
📅 2021   📍 Montreal, CA
- Collaborated on researching the integration of augmented reality technology into Bombardier's product offerings.
- Developed multiple software applications utilizing augmented reality for aircraft design, utilizing the HoloLens 2, Microsoft MRTK, and Unreal Engine 4.26 (C++).
- Thoroughly documented software production processes to ensure seamless integration and efficient maintenance.
- Organized future hardware requirements for scaling augmented reality development and integration efforts.

Keywords: Augmented Reality, C++, Unreal Engine, Research

Projects

COLLABORATIVE DRAWING APPLICATION
Multiplatform UI & Backend
Created and designed a Chrome supported web version, desktop version and android version of a real time collaborative drawing application that communicates with a NodeJS server.

AI / ALGORITHM PROJECTS | Academic and Personal Projects
- Designed and developed an AI agent that utilizes Monte Carlo Tree Search and a greedy algorithm to proficiently play the game Quoridor (Python, 2022).
- Implemented the Particle Swarm Optimization (PSO) algorithm to optimize scheduling in the job-shop environment with multi-purpose machines, increasing efficiency and reducing costs (Python, 2022).
- Developed a heuristic algorithm in C++ to effectively address the complex problem of gerrymandering (C++, 2020).
- Created a stock market sentiment analysis tool using natural language processing techniques on Reddit posts, providing actionable insights to inform investment decisions (Python, 2021).