ABDELMALEK ANES

Montreal (Open to Remote) | (514) 632-6771 | ab_anes@live.concordia.ca

LinkedIn | GitHub | Website

LANGUAGES

English, Spoken & Written | French, Spoken & Written

TECHNICAL SKILLS

Front End: React, Angular, Tailwind CSS, TypeScript, Next.js
Back End: Java/Spring Boot, Python/Django, C#, C/C++, Go, Node.js/Express.js
Other: Azure, AWS, Docker, Jenkins, Git, Jest, JUnit

WORK EXPERIENCE

Embedded Software Developer Intern at Caterpillar   Fall 2024 - Winter 2025
Laval, Quebec
- Developed backend features for autonomous mining machines using **C++** and implemented machine control interfaces using **Angular**
- Debugged critical backend issues and developed automated test procedures to validate software modules, improving system reliability by **40%**
- Analyzed requirements, specifications, and validation test plans to align software development with project goals, ensuring compliance with **safety standards**
- Collaborated in a scaled **Agile** environment with cross-functional teams, participating in daily standups and sprint planning to optimize development workflows

Software Developer Intern at Bombardier   Summer 2023
Montreal, Quebec
- Engineered data pipeline solutions using **Power BI** and **DAX**, implementing advanced filtering algorithms that reduced reporting time by **65%**
- Developed **Python** and **Power Automate** automation scripts that streamlined routine processes, saving **20+ hours** weekly in operational tasks
- Architected and deployed scalable **Azure SQL** database solutions, achieving **99.9%** uptime and **30%** improved query performance
- Delivered executive presentations highlighting automation achievements, demonstrating **$50K** annual cost savings and **85%** reduction in data processing errors

PROJECTS

Quolance | *Spring Boot, React.js, Next.js*   Fall 2024 - Winter 2025
- Architected and implemented a full-stack application using **Spring Boot** backend with **PostgreSQL**/**Redis** and **React**/**Next.js** frontend
- Established robust CI/CD pipeline using **GitHub Actions** and **Docker**
- Implemented comprehensive testing strategy with **JUnit**/**Mockito** for backend and **Cypress** for E2E testing

SmartClass A.I.ssistant | *Python, PyTorch, Matplotlib*   Summer 2024
- Developed a **real-time emotion detection system** using **Convolutional Neural Networks** achieving **85%** accuracy in classroom environments
- Created interactive visualization dashboard using **Matplotlib** to display emotion analytics and student engagement metrics

Othello Strategy Game | *Java, JavaFX, JUnit*   Summer 2022
- Built a feature-complete Othello game with a robust backend architecture
- Integrated game state persistence and implemented an **undo/redo system** using the Command pattern

EDUCATION

Concordia University   Winter 2022 - Winter 2025
Bachelor of Engineering, Software Engineering   *Montreal, QC*

Vanier College   Fall 2019 - Winter 2021
DEC, Health Science   *Montreal, QC*