

Massimo Caruso

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Hiring manager
COMPANY
STREETNUMBER STREETNAME, CITY, PROVINCE POSTALCODE

January 11, 2026

Dear Hiring manager,

I am thrilled to apply for the POSITION role at COMPANY. As a fourth year Software Engineering student at Concordia University, I bring a robust foundation in software development, coupled with hands-on experience from academic and professional projects.

During my internship at PayFacto, I worked on the deployment and implementation of MEVWeb, a province-wide cloud-based SaaS platform mandated by Revenu Québec. I supported the acquisition, cleaning, and preprocessing of merchant data to ensure accurate system onboarding and compliance. I also participated in end-to-end software deployments, both remotely and on-site, including planning, testing, and installation, and contributed to validating software builds by testing deployment packages and reporting bugs prior to production rollout. This experience strengthened my understanding of real-world SaaS deployment, cross-functional collaboration, and the operational considerations required when delivering compliant, production-ready software.

As a challenge designer with the Hexploit Alliance at AtHackCTF, I designed a security challenge simulating an access control system using MIFARE Classic cards, focusing on vulnerabilities like weak key management and privilege escalation. Participants reverse-engineered RFID memory sectors and forged admin access, gaining hands-on experience with embedded systems security.

As part of the AtHackCTF 2025 organizing team, I prepared over 600 MIFARE Classic cards by writing custom data, ensuring proper formatting and labeling, and supporting event logistics. I also coordinated the distribution of RFID card readers and facilitated a lockpicking activity, contributing to a hands-on learning environment focused on practical security concepts.

In addition, my academic projects strengthened my applied machine learning and software engineering skills. I completed a deep learning project where I designed, trained, and evaluated neural network models using Python and PyTorch. The work involved data preprocessing, feature normalization, and experimenting with different model architectures and hyperparameters to improve validation performance. I implemented training and evaluation pipelines, tracked metrics to compare model behavior, and analyzed sources of error to guide iterative improvements. This project reinforced the importance of reproducibility, data quality, and clear evaluation criteria when developing machine learning systems.

I also designed and implemented a secure wireless access control system using ESP32 microcontrollers with BLE and LoRa communication, incorporating multi-factor authentication, encrypted alert messaging, tamper detection, and actuator-based lock control. This project emphasized embedded firmware development, state-machine design, and secure communication between distributed nodes.

I also developed an online Food Database System, where I worked with APIs and relational databases to manage data ingestion, querying, and user interactions, reinforcing my experience with Python, JavaScript, SQL, and end-to-end application development.

What excites me most about COMPANY is COMPANYDETAILS. I am particularly drawn to the opportunity to POSITIONDETAILS.

I am confident that my technical skills, academic achievements, and passion for software engineering make me a strong candidate for the POSITION role. I would welcome the opportunity to discuss how my experiences align with the needs of your team. Please feel free to reach out to me at (514) 944-5977 or massimo02caruso@gmail.com.

Thank you for considering my application. I look forward to the possibility of contributing to COMPANY's success.

Sincerely,
Massimo Caruso