HOSSAM KHALIFA

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Portfolio: hossamgasser.github.io

EDUCATION

Bachelor of Engineering, Software Engineering — *Concordia University, Montreal, QC* 2022 – 2027 (Expected)

- GPA: 3.4 | Member of the Institute for Co-operative Education
- Relevant courses: Data Structures and Algorithms, Software Testing, Machine Learning, Computer Vision, Artificial Intelligence, App Development, UI/UX Design, Project Management

SKILLS

Languages: Java, Kotlin, Python, JavaScript, C#, C/C++, SQL, HTML/CSS, PHP
Mobile and web: Android (Android Studio), Node.js, REST APIs, Google Maps API, PostgreSQL, SQLite
AI and data: Prompt engineering, PyTorch, TensorFlow, scikit-learn, NumPy, Pandas, Matplotlib, Jupyter
Testing and DevOps: JUnit, Espresso, Mockito, Postman, GitHub Actions (CI/CD); unit, integration, end-to-end and usability testing
Tools and practices: Git/GitHub, IntelliJ, Figma, Unity, UML, Agile
Spoken languages: English (Native), Arabic (Native), French (Intermediate, DELF B1), Spanish (Beginner)

EXPERIENCE

DataAnnotator — *AI training platform* Dec 2024 – Present

- Top 25% worker on the platform.
- Write and refine prompts (prompt engineering) and stress-test models with jailbreaking and chain-of-thought (CoT) breaking to expose weaknesses in safety and reasoning.
- Compare and rank AI responses, fact-check answers and give written feedback on quality and reasoning.

Chess Teaching Assistant (Part time) — *Lower Canada College, Montreal, QC* Oct 2024 – Present

- Assist the instructor in teaching chess to students in grades 1 to 6 (1 to 3 hours per week), keeping sessions organized and resolving conflicts between students.

PROJECTS

YallaSchool Bus App — *Java, Android* 2026

- Designed and built the full Android front end of a school bus app mockup where parents register children and manage rides through a monthly subscription.
- Integrated the Google Maps API for route pathing and location setting.

Concordia Campus Guide — *Kotlin, Android* 2025

- Built the outdoor routing with the Google Maps API and the logic that chooses between shuttle and public transit directions based on schedule and availability.
- Developed the points-of-interest map; wrote unit and end-to-end tests and ran usability testing.

PopIn Event Registration App — *Java, Android* 2025

- Led development: designed the interface and database and built event creation and filtering, a guest browsing mode, and concurrency-safe registration.
- Worked on email and mobile notifications and acted as test engineer with a focus on test coverage.

Hand Gesture Recognition — *Python, PyTorch* 2025

- Trained and compared 11 CNN models (ShuffleNetV2, ResNet-34, VGG-16-BN) on 3 datasets, including 2 transfer-learning models; analyzed results with confusion matrices and Grad-CAM.

Data Poisoning on ML Intrusion Detection — *Python* 2025

- Wrote the code that poisons, label-flips and balances the NSL-KDD training data and analyzed how each attack affected detection performance.

EXTRACURRICULAR AND AWARDS

ATHACK App Developer (Volunteer) — *HEXPLOIT, Montreal, QC* Oct 2023 – Mar 2024

- Built an app to manage hackathon participants, sponsors, organizers and event statistics.

Activities: Concordia Chess Club member (2022 – Present); Yellow Door Generations Program (2023)
Awards: 2nd place and 3rd place, Canadian University Chess Championship (CUCC), 2024 and 2025