FAYCAL KILALI

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──── TECHNICAL SKILLS ────

Programming Python, Java, BASH, MBScript, C, MIPS Assembly;

Technologies Azure, Git, Linux, Windows, LaTeX;

Domains Machine Learning, Logical Agents, Algorithm Analysis, GIS, Systems Programming, Digital Signals and Processing;

Languages English (Native), Standard Arabic (Professional), Saudi Arabic (Professional), Darija (Native);

Paradigms Object-Oriented Programming (OOP), Parallel Processing, Dynamic Programming, Procedural, Logic;

Mathematical Advanced Calculus, Linear Algebra, Mathematical Modeling, Probability and Statistics, Discrete Structures, Real Analysis, Modern Algebra, Algorithm Analysis, Data Structures, Propositional Logic, Classical Physics, Modern Physics.

──── EDUCATION ────

MOUNT ALLISON UNIVERSITY | *B.Sc. (Hons) Computer Science and Mathematics*　　2022–Present
- Founded and serving as the President of the Robotics & AI Society, a society dedicated to exploring and developing AI and robotics technologies through interdisciplinary collaboration and efficient algorithm development.

──── EXPERIENCE ────

MOUNT ALLISON UNIVERSITY　　　　　　　　　　　　　　　　　Sackville, NB
Lead Full-Stack Software Developer　　　　　　　　　　　　May 2024 – Sep 2024
- Led TD Ignite Grant's funded project "AI Object Detection Framework and Educational Tool" focusing on AI-based object detection;
- Designed and implemented a robust object detection framework with an interactive educational game using YOLOv10, Flask, Tkinter, and Streamlit;
- Oversaw all phases of project lifecycle, from conception to deployment, ensuring timely delivery and adherence to budget constraints.

Mathematics and Computer Science Peer Tutor　　　　　　Mar 2023 – Sep 2024
- Tutored over 50 students across various mathematical subjects, developing lesson plans and customized teaching approaches to meet the indiviudal needs of the student;
- Demonstrated proficiency in teaching and problem-solving, resulting in positive feedback from both students and professors.

MOVING FORWARD CO-OPERATIVE　　　　　　　　　　　　　Dorchester, NB
Technical Lead　　　　　　　　　　　　　　　　　　　　Jan 2023 – Jul 2023
- Spearheaded technical operations for a non-profit organization, overseeing data gathering, mapping, and software development to optimize impact and further mission;
- Collaborated cross-functionally to integrate technical solutions with broader strategic goals and non-profit values, ensuring that all projects aligned with organizational priorities;

- Led a team of volunteers and staff members, fostering a positive and productive work environment that facilitated effective project delivery and stakeholder engagement.

OPEN SOURCE PROJECTS

MEDIEVAL CONQUESTS │ *Founder & Lead Developer*   2016 – 2019
- Founded and led a successful Medieval-era module for the popular game "Mount & Blade: Warband," managing a team of volunteer testers and contributors for over a year and a half, achieving a 92% rating on Steam;
- Spearheaded the implementation of a wide range of features, including enhanced combat fidelity, improved graphics, and engaging gameplay mechanics, resulting in over 120,000 unique active subscribers and 500,000 unique visitors.

TAINTED PATHS │ *Founder & Lead Developer*   2018 – 2019
- Founded, led development of, and managed diverse team of volunteers for mapping, modeling, and testing for the project;
- Achieved impressive results with over 203,000+ unique visitors 34,000+ unique active subscribers, and a positive rating of around 90% in Steam.

FLORIS EVOLVED │ *Co-Founder & Developer*   2015 – 2016
- Co-developed and Co-founded major game overhaul with 160,000+ active subscribers and over 600,000 unique visitors across platforms;
- Managed all aspects of the project, including technical development, project management, and team leadership, culminating to a 95% positive rating on Steam.

TRANSFERABLE SKILLS

Leadership Led multiple successful open-source projects and technical teams;

Communication Effectively tutored and mentored 50+ students in complex technical subjects;

Project Management Managed complex projects from conception to deployment;

Problem Solving Developed innovative solutions for technical challenges across various platforms.

CERTIFICATIONS

Machine Learning with Python - IBM, Coursera;   2024

Object-Oriented Design - University of Alberta, Coursera;   2024

Microsoft Learn AI Skills Challenge.   2023

ACCOMPLISHMENTS

- Founded and serving as the President of the Robotics & AI Society, leading interdisciplinary collaboration in AI and robotics technologies;
- Co-Founded and serving as the Vice President of the Mature Students Club, one of the largest clubs in the Mount Allison University advocating for Mature Students;
- Developed advanced proficiency in Pure Mathematics through self-study, culminating in the proof of over 600 mathematical propositions using logical reasoning and critical thinking abilities, as well as skills in problem-solving, data analysis, and attention to detail.