

# Aziz Hidri

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## Education

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**BSc**    **Polytechnique Montréal**, Software Engineering

2022 - 2026

## Projects

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### Tactical RPG Platform:

[Tactical-RPG-Platform](#) 🔗

- Developed a minimalistic tactical RPG platform where players engage in grid-based gameplay featuring various terrains, obstacles and turn-based combat. The project involved the following technologies :
- **Frontend:** Used Angular with TypeScript to build a dynamic and responsive user interface.
- **Backend:** Implemented server-side logic with Nest.js and to manage game mechanics and player interactions.
- **Database:** Integrated MongoDB to handle data storage for player stats, maps and game states.
- **Features:** Included map navigation, turn-based combat, interactive elements, a game editor for creating new games and scenarios, a chat feature for player communication, activity logging for game events, and the possibility to compete against virtual players.
- **Testing:** Conducted client-side testing using Jasmine to ensure component functionality, and performed server-side testing with Jest to validate API endpoints and core game logic.

### Melanoma Classification and Detection

[Melanoma Classification](#) 🔗

- Developed a deep learning-based image classification pipeline for detecting melanoma in skin lesions. The project involved the following technologies:
- **Model Architecture:** Designed a CNN with TensorFlow/Keras, using batch normalization, max pooling, and dropout for robust and accurate classification.
- **Data Preprocessing:** Implemented automated data augmentation and preprocessing techniques, such as random flips, rotations, and zooms, to improve model generalization.
- **Visualization:** Plotted confusion matrices (raw, normalized by row and column) and classification metrics for detailed performance analysis.
- **Evaluation:** Achieved high classification accuracy on test data with metrics like precision, recall, and F1-score validated through a classification report.
- **Technologies used:** Python, TensorFlow/Keras, Matplotlib, Scikit-learn.

### Personal Portfolio Website

[azizhidri.com](#) 🔗

- Designed and developed a personal portfolio website to showcase projects and skills in web development and programming. The project involved the following technologies and features:
- **Frontend:** Built with React and Vite for a fast and modern development experience, using JSX for dynamic and reusable components. Used Tailwind CSS to create a responsive, clean, and visually appealing design.
- **Deployment:** Hosted on GitHub Pages, ensuring high availability and fast loading times.
- **Custom Domain:** Configured a custom domain by setting up DNS records, includ-

ing CNAME and A records, to map the domain to the deployed site.

- **Technologies used:** React, Vite, Tailwind CSS, GitHub Pages.

## Technical Skills

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**Programming Languages:** Proficient in C++, JavaScript, Typescript and Python, Familiar with Java and SQL.

**Mathematics:** Calculus, Probability and Statistics, Linear Algebra, Machine Learning.

**Other Skills :** Data analysis, Source Control via Git, MVC Architecture, Agile development and Software Design.

## Soft Skills

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**Teamwork and Collaboration:** Worked effectively in Agile teams to deliver high-quality software products.

**Time Management:** Skilled in managing multiple priorities and meeting deadlines under pressure.

**Communication skills:** Good communication skills, with experience using tools like PowerPoint to create clear and engaging presentations.

## Extra-Curricular Activities

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### **PolyOrbite - Public Relations Team Member:**

- Active member of PolyOrbite, a technical society at Polytechnique Montréal focused on the development of rovers and satellites. Contributed to the development of the organization's website using TSX (React with TypeScript), Next.js, and Tailwind CSS to create a modern, responsive interface. Worked specifically on the Rover and Education pages, implementing interactive features and ensuring a seamless user experience. The website highlights PolyOrbite's projects and achievements while aligning with the society's mission and technical accomplishments.