





# ZIAD ELRAGGAL

## COMPUTER ENGINEERING STUDENT

### CONTACT

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-  [Explore My Portfolio and Projects](#)
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### EDUCATION

#### Memorial University of Newfoundland and Labrador

Faculty of Engineering and Applied  
Science Co-op Program

Enrolled in Academic Term 6  
GPA 3.56/4.00

**2022-2027**

### SKILLS

Full-Stack	◆◆◆◆◆
Git, Github & GitFlow	◆◆◆◆◆
Data Visualization	◆◆◆◆◆
Cloud & DevOps	◆◆◆◆◆
Systems Design	◆◆◆◆◆
Machine-Learning	◆◆◆◆◆

### AWARDS AND CERTIFICATIONS

**Academic Excellence Scholarship**  
Valued at 4000\$ by Memorial University

**Github Foundations**  
Issued by Github Microsoft

**Mental Health First Aid Training**  
issued by Memorial University  
Residence Life

### LANGUAGES

English	◆◆◆◆◆
Arabic	◆◆◆◆◆
German	◆◆◆◆◆

### ABOUT ME

Senior Computer Engineering Student at Memorial University of Newfoundland and Labrador | Demonstrated proficiency in research, organization, and time management; skilled at diagnosing problems and devising innovative, tailored solutions

### WORK EXPERIENCE

#### Software Engineering Student

Angler Solutions Inc., Remote

**Apr 2025  
- Aug 2025**

- Engineered and maintained 20+ full-stack energy system models, integrating backend algorithms with dynamic front-end interfaces to deliver production-ready tools.
- Designed and implemented a unified model that combined multiple system types into a single scalable framework, improving efficiency and reducing duplication.
- Expanded platform infrastructure with AWS strengthening reliability and advancing full-stack engineering practices.

#### Software Engineering Student

Angler Solutions Inc., St.John's, Canada

**Sep 2024  
-Dec 2025**

- Led full-stack development of renewable energy simulation software using Next.js, FastAPI, Docker, and PostgreSQL, improving reliability and deployment workflows on AWS.
- Engineered a scalable wind speed database, cutting simulation runtimes by 70% and enabling future API commercialization.
- Implemented a machine learning model for real-time wind speed prediction, boosting efficiency and data reliability.

#### Software Developer Student - R&D

Marine Institute, St.John's, Canada

**Jan 2024  
-Apr 2024**

- Engineered a MATLAB-based app for Keithley data logging, integrating Test Script Builder and Lua scripting to automate experiments and reduce monitoring needs by 23.8%.
- Authored technical documentation and developed experiment protocols to streamline long-term testing across diverse scenarios.

### PROJECTS

#### Project HEART: Health Enablement and Risk Tracking

**Oct 2024  
-Current**

- Engineered an elder care system integrating AI fall detection with Google's MediaPipe to ensure rapid emergency response and health monitoring.
- Created a full-stack React Native app featuring secure authentication and live status tracking, integrated with Dockerized FastAPI-PostgreSQL, and showcased via a Next.js website.

#### ZSM Defense - Unity 6 Tower Defense Game

**Jan 2025  
-Apr 2025**

- Led a team to develop a 2D tower defense game in Unity 6 (C#), designing modular AI, scalable wave systems, and upgrade-based combat mechanics.
- Delivered polished gameplay with UI/UX integration, Shader Graph VFX, and event-driven systems, releasing official builds for Windows and macOS.

### VOLUNTEER EXPERIENCE

#### Barnes House President

**Sep 2023  
-Apr 2024**

- Collaborated with residence leaders to organize large-scale community events, managing logistics and enhancing participation.
- Supported house-specific initiatives as an executive council member, connecting students to resources and fostering teamwork in resolving challenges