

Madeline Capone | Software Engineer/ Mechanical Engineer

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PROFILE

Eager and passionate software and mechanical engineer with a strong foundation in programming and machine design. Expanded expertise from mechanical engineering to software engineering driven by a passion for coding and problem solving. Brings a strong background in C++, Python, JavaScript, React, and Node.js for software development. Proficient in 3D modeling softwares, including SolidWorks AutoCAD, and NavisWorks, and skilled in Finite Element Analysis (FEA) simulation to optimize and validate mechanical designs.

SKILLS

Software Engineering: Python, C++, HTML, CSS, JavaScript, Node.js, React, Express, MySQL, Agile Development, Document Object Model (DOM) APIs, Web APIs, User Authentication, OAuth, Heroku, Git, Jest.

Mechanical Engineering: Mechanical Engineering Design, Design Calculations, AutoCAD, NavisWorks SolidWorks FEA, ABAQUS Simulation.

EXPERIENCE

Mechanical/Software Engineer (EIT) | Stantec | OCT 2021 - OCT 2023, DARTMOUTH, NS

- Oversaw project progress and client communication, facilitating meetings to address concerns and ensure project alignment with client expectations and budgets.
- Streamlined ABAQUS analysis procedures by creating applicable python scripts, reducing modeling time by 70%.
- Spearheaded design projects for mechanical and structural models using SolidWorks Simulation and ABAQUS, resulting in optimized designs and processes while ensuring adherence to industry standards.

Logistics Analyst | Fleetway, Inc. | MAY 2021 - OCT 2021, DARTMOUTH, NS

- Identified and mitigated hundreds of critical component failures, reducing system downtime and critical failures.
- Implemented Lean Six Sigma tools, resulting in 50% increase in process efficiency.

PROJECTS

Lead Developer | HyperTask

AUG 2024, BRAINSTATION CAPSTONE

- Developed a full-stack AI-powered project management tool using React for the frontend, Node.js and Express for the backend, OpenAI API for intelligent task management, and MySQL for database storage.
- Improved project task creation and management by 75% compared to creating tasks manually.

Co-Lead Developer | OneHealth

AUG 2024, BRAINSTATION INDUSTRY PROJECT

- Partnered with Microsoft for a 24 hour hackathon to enhance Canadian trust in AI by developing a personalized health record database.
- Integrated monitored AI responses to provide users with immediate, personalized insights and explanations about their healthcare. Focused on improving the efficiency of the healthcare system by reducing the strain on healthcare professional resources through AI solutions.

EDUCATION

BrainStation | Diploma, Software Engineering

JUNE 2024 - SEPT 2024, TORONTO, ON

Western University | Bachelor's in Mechanical Engineering

JAN 2017 - APR 2021, LONDON, ON