Mithil Damani

m3damani@uwaterloo.ca (437) 972-3521 mithildamani256.github.io mithil-256-d
mithildamani256

Education

University of Waterloo *Sept 2021 – Apr 2026*
Bachelor in Computer Science (Co-op)

- GPA: 3.7/4.0
- **Coursework:** Algorithms, Introduction to Artificial Intelligence, Introduction to Machine Learning, Deep Learning Specialization (Coursera), Object-Oriented Software Development

Experience

Machine Learning Intern *Dallas, TX*
Cynapta *Sept 2024 – Dec 2024*

- Prompt-engineered ChatGPT-4 with OpenAI's ChatCompletion API for strict web-content-based queries
- Developed a UI with Next.js and TypeScript for customer-driven social media content creation
- Utilized Puppeteer and Cheerio to generate markdown content and capture screenshots of target websites
- Implemented chat history functionality and user-based authentication using Firebase for 1k+ users

Machine Learning Intern *Burlington, ON*
WealthyPlanet *May 2023 – Aug 2023*

- Fine-tuned ChatGPT-3.5 Turbo with PyTorch to build a personal finance optimization engine for 5k+ users
- Added support for the financial chatbot using a bubble.io UI, achieving a usage rate per login of over 70%
- Engineered a Docker-hosted Flask API layer to access the model, handling 10k+ user requests monthly

Software Developer Intern *Oakville, ON*
Geotab *Jan 2024 – Apr 2024*

- Enhanced UI components for assets page using React and TypeScript, boosting usability for 100k+ users
- Authored Jest and Selenium test suites in C# to validate functionality and integration of 6 new components

Software Developer Intern *Remote*
Niyo *May 2022 – Aug 2022*

- Developed a GraphQL API with Apollo Server using SDL and Typescript, for a banking app with 5k+ users
- Deployed over 30 GraphQL queries and mutations, enhancing the Transactions page performance by 20%
- Implemented MongoDB resolvers using Mongoose, efficiently handling over 1k+ requests daily

Projects

SynthCheck *github.com/name/repo*

- Implemented transfer learning with PyTorch to fine-tune ResNet50 for real vs. synthetic image classification
- Utilized the ArtiFact CycleGAN dataset, for training and validation, achieving over 93% accuracy

FaceMask Detection *github.com/name/repo*

- Fine-tuned YOLOv8 model using Ultralytics for face mask detection and localization, achieving a detection accuracy of over 91%
- Achieved 90% mAP@0.5 and 85% F1 Score ensuring high precision and recall across real-time scenarios

Technologies

Languages: Python, C++, C, C#, SQL, JavaScript, TypeScript

Tools and Technologies: PyTorch, Pandas, Numpy, Scikit-learn, React, React Native, Node.js, Git, GraphQL, MySQL