MICHAEL VYTLINGAM

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EDUCATION

UNIVERSITY OF WATERLOO / **MECHANICAL ENGINEERING (BaSc)** SEPT 2017 — APR 2022

- Artificial Intelligence Option
- GPA: 83%
- Coursera: Machine Learning by Andrew Ng
    (Linear/Logistic Regression, Neural Networks, SVMs, Anomaly Detection, System Design)
- Professional Development Courses: Project Management, Organizational Behaviour, Intercultural Skills

SKILLS

LANGUAGES: Python, Go, MATLAB, TypeScript, JavaScript, Dart, C/C++, Java, SQL

FRAMEWORKS + LIBRARIES: Express, Flask, React, Redux, Vue, Flutter, Electron, JEST, Lottie

DATA: PostgreSQL, MongoDB, TensorFlow, Keras, GraphQL

TOOLS: Git, Docker, AWS, Firebase, Figma

EXPERIENCE

BLACKBERRY / **MACHINE LEARNING INTERN** INCOMING (SEPT 2020 — DEC 2020)

CRYPTONUMERICS / **FULL STACK DEVELOPER INTERN** JAN 2020 — APR 2020

- Built and shipped new features in cross-platform Electron app for dataset privacy protection (Node)
- Developed internal report generator service based on Pentaho (Java), used in multiple company products
- Improved automation of code signing on Windows release builds by incorporating shell scripts
- Created user stories (Figma), built out UI/UX for upcoming web-based enterprise application (React/Redux)
- Practiced test driven development in order to prevent avoidable regressions

UNIVERSITY OF WATERLOO / **ML RESEARCH ASSISTANT** SEPT 2019 — DEC 2019

- Trained real-time, object detection model of kitchen items using Darknet's YOLO for pasta-cooking robot
- Increased model's pan detection accuracy by 28% by introducing more training data and improved labeling

GRAIN DISCOVERY / **SOFTWARE ENGINEERING INTERN** MAY 2019 — AUG 2019

- Utilized React, Redux, DeckGL and Express to build commodity trading, progressive web application
- Designed concise, well-tested functional components with emphasis on reusability and maintainability
- Created diverse user stories for UI/UX to cater to wide range of demographics in agricultural business industry
- Decreased front end build time by 23% after incorporating shell scripts, and re-configuring build settings
- Practiced agile and scrum methodologies in a fast-paced pre-launch startup environment

ENGINEERING.COM / **SOFTWARE ENGINEERING INTERN** SEPT 2018 — DEC 2018

- Worked extensively in Vue, Vuex, Fabric.js, Go and MySQL on ProjectBoard, a project collaboration platform
- Wireframed and implemented new home and profile pages with positive feedback from users (Hotjar, Vue, Vuex)
- Created authenticated RESTful endpoints in Go, designed admin dashboard to view user and content analytics
- Increased test coverage by 65% by introducing more end-to-end and unit testing for critical site features

PROJECTS

BAKERY MANAGER (iOS/Android) ONGOING

- iOS/Android production app for Toronto bakery to manage employees, sales and inventory at their stores
- Technologies: Flutter (Dart), Firebase, Google Cloud Functions, Square APIs

HANDWRITTEN SUDOKU APR 2020

- Classic Sudoku with handwritten input. CNN trained on MNIST dataset with 98.5% accuracy.
- Technologies: TensorFlow, Keras, React, Flask