

# MICHAEL VYTLINGAM

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## Technical Skills

**Languages:** TypeScript, JavaScript, Python, Go, Dart, C/C++, MATLAB, Bash, SQL, HTML, SASS  
**Frameworks:** React, Redux, Vue, Express, JEST, React Testing Library, Flutter, Electron, Gorilla MUX, Flask, Django  
**Datacentric:** MongoDB, PostgreSQL, Snowflake, TensorFlow, GraphQL, Numpy, Pandas, Matplotlib  
**Tools:** Git, Docker, Figma, Firebase, Jenkins, AWS, Jupyter Notebook, Postman, vim, VSCode, OSX/Linux/Unix

## Experience

- Software Engineer** Incoming  
*Snowflake - Data Exchange Team* San Mateo, CA
- Software Engineering Intern** May 2021 - August 2021  
*Snowflake - Data Exchange Team* San Mateo, CA (Remote)
- Creating new and captivating experiences on the Snowflake Data Marketplace product in **React** and **Express**
  - Working alongside product managers, designers and release teams to ensure features release in a timely fashion
  - Built reusable and **React** component for **UI framework** used org-wide, with consideration for **accessibility**
- Machine Learning Engineering Student** Sept. 2020 – Dec. 2020  
*BlackBerry – QNX Open Source and Safety Compliance Team* Ottawa, ON (Remote)
- Improving efficiency of **NLP-based**, open-source license detection pipeline written in **Python** using **fastText**
  - **Reduced file crawling time by 70%**, introducing **multiprocessing** and **multithreading**
- Full Stack Developer Intern** Jan. 2020 – Apr. 2020  
*CryptoNumerics - Protect Team* Toronto, ON
- Built and shipped new features for cross-platform **Electron** app used for CSV dataset privacy protection
  - **Led front end application overhaul**: added support for **ES6**, **SASS**, unit testing, and linting; **restructured Redux store** to handle application state only; **introduced React Hooks** and new container **component pattern**
  - Developed internal **report generation microservice** in **Java** based on Pentaho, consumed in all company products
  - Enforced test driven development using **JEST**, **Spectron**, and **Azure DevOps CI pipelines** preventing regressions
- Undergraduate Research Assistant** Sept. 2019 – Dec. 2019  
*University of Waterloo* Waterloo, ON
- Trained real-time object detection model of kitchen items using **Darknet's YOLO** for pasta-cooking robot in **Python**
  - **Increased** model's pan detection **accuracy by 28%**, introducing **synthetic data** with improved labeling
- Software Engineering Intern** May 2019 – Aug. 2019  
*Grain Discovery* Toronto, ON
- Utilized **React**, **Redux**, **DeckGL** and **Express** to build commodity trading, progressive web application
  - **Decreased local front end build time by 23%**, adding dependency and image optimization to **Webpack**
  - Practiced **agile** and **scrum methodologies** in a fast-paced pre-launch startup environment
- Software Engineering Intern** Sept. 2018 – Dec. 2018  
*ENGINEERING.com – ProjectBoard Team* Toronto, ON
- Worked extensively in **Vue**, **Vuex**, **Go** and **MySQL** on project collaboration platform with **2M+ monthly users**
  - Built dashboard to visualize user analytics in **Vue**, created RESTful endpoints using **Go** and **SQL**
  - Wireframed and built new home and profile pages in **Vue** and **Vuex** with **overwhelmingly positive user feedback**

## Education

- University of Waterloo** Sept. 2017 – May 2022  
*Candidate for BAsC in Mechanical Engineering, Artificial Intelligence Option* Waterloo, ON
- Coursera: Machine Learning by Andrew Ng
  - Relevant Courses: Algorithms and Data Structures, Co-operative and Adaptive Algorithms, Intro to Optimization, Numerical Methods, Statistics for Engineers, Microprocessors and Digital Logic, Project Management

## Projects

- Pancho's Bakery Store Manager** | *Flutter (Dart), Firebase, Google Cloud Functions, Square* Jun. 2020 – Present
- **iOS/Android production app** commissioned by Toronto bakery to manage employees, sales and inventory at stores