

# Ibrahim Irfan

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ibrahimirfan.com 

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## Skills

**Proficient:** C++, C, Python, Node.js, .NET Core, AWS, HTML, CSS

**Comfortable:** PHP, MySQL, AngularJS, DynamoDB

**Familiar:** Docker, MongoDB, Go, OpenCV, TensorFlow

## Work Experience

### Thomson Reuters - Software Developer

May - Aug 2018

- Automated project infrastructure and deployments for user identity management using AWS CodePipeline to ensure end-to-end continuous integration, saving numerous hours per week.
- Reduced build time by over 40% by parallelizing API and UI builds, saving over 6 minutes per build.
- Fixed AWS ECS crashing by caching API calls to reduce container CPU and memory usage by 70%+.
- Securely developed many significant API endpoints in .NET for user base functionality.

### Geotab - Software Developer

Jun - Aug 2017

- Led the development of an HR automation system which drastically reduced redundancy in the company hiring process, saving hours per hire.
- Significantly increased employee efficiency through creating an accurate resume parser and automating emails with Google Apps Script.

### ViceroyMedia - Full-Stack Developer

Jun - Dec 2016

- Collaborated with a team to develop an Exam Network web app for the University of Guelph.
- Implemented a file system for course materials using JavaScript, including viewing, uploading, and downloading files.
- Integrated Facebook Login API for over 5000 students to be able to login to the application.

## Projects

### Palm Vein Authentication System - Hack the North 1st Place

Aug 2018

- Built a palm vein authentication system with over 93% accuracy using Python, OpenCV, and TensorFlow using infrared LEDs and a RaspberryPi.
- Used OpenCV image processing to consistently reduce noise and skeletonize the vein image.
- Over 2.5k views on Hackster.io and to be featured in Make Magazine for over 300k readers.

### Point-To-Speech - MasseyHacks 3rd Place

Apr 2017

- Engineered a device for the blind which speaks out the word that a user hovers their finger over on a physical page of text using a Raspberry Pi, Node.js, MongoDB, and Python.
- Integrated OCR to accurately identify words and used LeapMotion to map hand position in space.

### Exam Parser & Web Application

Sep 2016

- Securely handled over 200 user accounts using PHP and MySQL, implementing industry standard database security measures such as hashing and salting.
- Developed a Node.js script to accurately parse PDF practice exams and output self-marking online forms to a web application, including a login system with admin access.

## Education

### University of Waterloo - Bachelor's of Software Engineering

2017 - 2022

- 93% CGPA with 2 consecutive top decile and Dean's List awards.