

Ibrahim Irfan

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EDUCATION

UNIVERSITY OF WATERLOO | SOFTWARE ENGINEERING 2022

Sep 2017 – Apr 2022

- **90% CGPA**, 2 consecutive Dean's list and top decile awards.

SKILLS

Proficient	Python, Go, C++, C, Node.js, AWS, HTML/CSS
Comfortable	Ruby, Scala, PHP, MySQL, .NET
Familiar	Docker, MongoDB, OpenCV, TensorFlow

EXPERIENCE

STRIPE | SOFTWARE ENGINEERING INTERN - APPLICATION SECURITY

Jan 2019 – Apr 2019 | San Francisco, CA

- Developed a secure file transfer tool in **Ruby** to allow Stripe to send encrypted files to merchants.
- Helped numerous teams migrate from insecure file transfer methods, with **over 50 files** transferred in 24 days of release.
- Found **200+ high/critical security vulnerabilities** by developing a CLI in **Go** to automatically find, classify, and fix vulnerable dependencies.

THOMSON REUTERS | SOFTWARE ENGINEERING INTERN

May 2018 – Aug 2018 | Toronto, ON

- 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%+**.

GEOTAB | SOFTWARE DEVELOPER INTERN

Jun 2017 – Aug 2017 | Oakville, ON

- 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 | WEB DEVELOPER INTERN

Jun 2016 – Dec 2016 | Oakville, ON

- 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 to allow over **5000 students** 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 **3000 views** on Hackster.io

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.