# YUSRA IRFAN

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## EDUCATION

**Bachelor of Engineering Science (Software Engineering),** Western University          Sept 2017 – Apr 2022
- *Dean's Honor List* 2018, 2019, & 2020; cGPA: 3.67

## TECHNICAL SKILLS

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|---|---|
| Languages | C#, JavaScript, TypeScript, Java, SQL, Python, C++, HTML/CSS, Haskell, Go, Swift, Dart, MATLAB, & C |
| Tools | Angular, NodeJS, PostgreSQL, GBQ, React, Redux, React Native, Flutter, AWS, Firebase, MongoDB, Mockito, Pandas, NumPy, Bootstrap, Android SDKs, Git, JIRA, SVN, Unity, & UML |

## ENGINEERING EXPERIENCE

**Software Developer Intern,** Geotab | *C#, .Net Core, Angular, SQL, GBQ, Python, Git, Agile*       Sept 2020 – Aug 2021
- Developed and optimized UI components in Angular to implement new features (such as automation of return merchandise authorization) while *increasing test coverage by 100%*
- Designed components for backend using RESTful API principles, and *optimized scheduled queries by 30%*
- Served as a subject matter expert for the server monitoring project, which monitors the health and status of external and internal servers and streamlined releases, *resulting in a 5x increase in efficiency*
- Leveraged analytical skills to gather requirements and propose solutions to improve development inefficiencies
- Troubleshot various high impact on-call bugs to maintain continuity in production

**Summer Research Intern,** Western University & London Hydro | *Python, MATLAB, Git*       May 2020 – Aug 2020
- Awarded *Undergraduate Summer Research Internship Award* to predict EV battery usage with *92% accuracy* by considering multiple variables using Machine Learning Algorithms in P*ython* and *MATLAB*

**Software Developer (Co-op),** McMaster University and IBM Canada | *Haskell, Go, SVN*       May 2019 – Aug 2019
- Researched Code Generation for Cryptographic Kernels (Elliptic Curve), wrote algorithms in *Haskell*, and helped prepare these aspects of the Coconut tool for publication as an open-source project
- Parallelized the scalar multiplication operation of ECC using *Go*; *increased the efficiency by 40%*

**Research Assistant (Co-op),** McMaster University and IBM Canada | *Haskell, C, SVN*       June 2018 – Aug 2018
- Proved the feasibility of a proposal that a processor can do double the calculations per second for the IBM Power 9 processor; contributed to 4/10 mathematical functions. ***Published an award-winning paper*** to CASCON 2018

## PROJECTS

**Melodify (Same Home Different Hacks),** *Angular, Nodejs, JavaScript Puppeteer library, Bootstrap*       June 2020
- Developed a web app with a team of 4, that scrapes a specified website using Puppeteer and translates the words into musical notes using a JS Dynamic Audio Synth library
- Pitched the design and demo winning ***Best Silly Hack***; https://devpost.com/software/melodify-m8ab59

**Puffaway,** *Dart, Flutter, Firebase (Firestore & Cloud Functions), Python, Flask, UML, Agile*       Jan 2020 – Apr 2020
- Developed an Android & IOS app to assist individuals to quit vaping utilizing game theory
- Demonstrated leadership by ***leading a team of 5*** as a scrum master and developer using Scrum methodology
- Automated *unit, component*, and *integrated testing* was done through *Flutter* libraries and *Mockito*

**Music Review Platform,** *Angular, Nodejs, TypeScript, MongoDB, AWS, Restful API, Github*       Dec 2019
- Developed a full-stack web app, where users can rate songs; submit and read reviews, similar to IMDb
- Some functionalities: soft/hard searching, external and link verification of users, and security policies
- Learned about *JWT* tokens, setting up databases, *Restful* APIs, and authenticating users

**FastDr. (RBC AmpHacks),** *HTML/CSS, Bootstrap, JavaScript, Python, Flask, Google APIs*       Sept 2019
- Developed a responsive website and an algorithm to find the fastest time to be assessed by a doctor in any area
- Integrated with Google Maps and govt data. ***Won the Most Creative Hack***; https://github.com/irfanyusra/fastdr

## EXTRACURRICULARS

**Outreach Volunteer,** McMaster Start Coding | Teaching underprivileged students programming  May 2018 – Present
**Outreach Ambassador,** *Geotab* | Promoted women in STEM through hackathons       Sept 2020 – Aug 2021
**Mentor,** *Women in Technology Society* | Mentored a team of 4 students for a year-long project Sept 2020 – Apr 2021
**Co-President,** Western Karate Club | In charge of finance, organizing events, and outreach       Sept 2019 – Apr 2020