

# Arshia Mufti

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## EDUCATION

### University of Waterloo

Waterloo, Canada

Candidate for Bachelor of Computer Science, Honours · Expected August 2019

- **Designing Functional Programs (advanced)** — Designed an interpreter for a Scheme-like language.
- **Elementary Algorithm Design & Data Abstraction (advanced)** — Designed an assembler and compiler for a C-like language. Memoization · ARM architecture · Continuations
- **Foundations of Sequential Programs (enriched)** — Designed a compiler for Lacs, a Scala-like language. Lexing · Parsing · Type Checking · Context-sensitive analysis · Code generation · Garbage collection

## EXPERIENCE

### WeMesh

Kitchener, Canada

Backend Web Developer

Jan 2016-present

- Worked on the new usership model and implemented features enabling users to request friendship, follow and block each other · Scala · Akka · Scrooge/Finagle · Slick · PostgreSQL
- Added backend video support for Vimeo · Clojure · Hystrix · Redis
- Integrated Graylog into several microservices to speed up crash analysis and bug fixes.

### Waseel

Riyadh, Saudi Arabia

Agile Software Engineer Intern

May 2015-June 2015

- Designed a native iOS app in Swift aimed at providing users the ability to access real-time data about hospitals, insurance companies, and medical services based on their location in the city.
- Implemented: HTTP networking in Alamofire using class extensions · Location services features using MapKit · Table Views · Parsing JSON and XML · Improved fuzzy search feature

### Waterloo Women in Computer Science Undergraduate Committee

Waterloo, Canada

Director of Finance

September 2015-present

- Secured external funding for the WiCS undergraduate committee in collaboration with the Chair.
- Represented WiCS financially by proposing the semester budget, and maintaining financial records.

## SKILLS AND INTERESTS

- Strongly interested in performance improvement, and the theory and application of functional languages.
- Working experience with Clojure, Scala, Swift, PostgreSQL, Bash.
- Familiar with HTML5/CSS3, Python, C++, Java, Scheme, Google App Engine, and MySQL.

## PROJECTS

### Baylexa

AWS Lambda, Python

Led a team of four to design the winning healthcare app for MHacks: Refactor, an Alexa skill aimed at recognizing symptoms of common health conditions, providing basic first aid and healthcare advice, scheduling appointments, and contacting immediate family or health authorities in case of emergencies.

### Mathrix

HTML5, CSS3, Python, Bootstrap

Designed and built a website with a classmate for performing common matrix operations relevant to our Linear Algebra coursework. Added CSS, Polymer (material design) styles, and matrix functions.

### TuneMe

Swift

Built an iOS app that allows users to record audio and play it back with applied sound filters, in accordance with the Model-view-controller (MVC) model, as a way to self-learn Swift & iOS application development.

## AWARDS

- **WiCS Scholarship for the Grace Hopper Celebration of Women in Computing, September 2015**
- **President's Scholarship, Fall 2014** — awarded to students with a strong academic record.
- **International Indian School Topper, March 2014** — ranked first in Central Board of Secondary Education (CBSE) grade XII examination in Riyadh, Saudi Arabia · Cumulative Average: 96.4%
- **Best Speaker, October 2013** — awarded in the annual Riyadh Inter-school Debate Competition.