

# MONICA IBRAHIM

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## EDUCATION

### **MS in Computer Science, Northeastern University, GPA: 4.0/4.0**

Jan '19 - Dec '20

Algorithms (C), Advanced Algorithms, Computer systems (C), Discrete Math, OOD (Java)

### **Community Colleges, Edmonds, Lake Washington, Highline, GPA: 4.0/4.0**

May - Dec '18

Java 1, Java 2, Linear Algebra, Intro to Python

### **Full Time User Experience Design Program, RED Academy**

Jul - Sept '17

### **BSc, Cognitive Systems, Cognition and Brain Opt, UBC Vancouver, GPA: 3.5/4.33**

May '17

Intro to Programming (Racket), Models of Computation, Computers & Society, Symbolic logic, Metatheory & Computability, Induction decision & Game theory, Calculus 1, 2 & 3, Physics 1 & 2

## LANGUAGES AND TECHNOLOGIES

**Languages:** Java, C, Python

**IDE software and tools:** Git, IntelliJ, Pycharm, VSCode, Vim, JUnit, Maven, VirtualBox, gdb

**Operating Systems:** Mac OS, Linux (Ubuntu), Windows

**Design Software:** Sketch, Invision, Marvel

## RELEVANT EXPERIENCE

### **Teaching Assistant, Discrete Math, Northeastern University**

Expected start Sept '19

### **Secure Message Verification via RSA Digital Signatures**

Aug '19

- Implemented RSA key-pair generation for clients in a simulated banking system.
- Implemented a message signing and verification layer for secure client-server communication.

*Java, IntelliJ, JUnit, Maven, Git, Mac OS*

### **Distributed movie index and search engine**

Mar - Apr '19

- Crawled ~50 files containing information on 5M movies and built a compact multi-layer index over the dataset.
- Built a query processor that answered queries in  $O(n)$  runtime ( $n$ : # results).
- Built an interactive CLI and a multi-threaded server using sockets to answer movie and search queries.

*C, Vim, VirtualBox, gdb, Git, Linux (Ubuntu)*

### **Project Intercept: Disrupting sex trafficking through tech**

Jun '17 - Apr '18

- Started a user-focused design process at an early stage on this massive platform at the local and national levels.
- Interviewed users at Seattle-based NGOs, came up with features to solve their problems, prepared mocks and presented to the broader engineering team. Most of these features are now live in production.
- Platform has won several awards. Was presented at dozens of national conferences and to Microsoft CEO and EVPs.

*Sketch, Invision, Mac OS*

## AWARDS

### **Top 15% of UBC Science Winter 2012 class, Golden Key Honors Society**

Nov '13

## ADDITIONAL EXPERIENCE

### **Co-president, UBC Golden Key Honors Society**

Jul - Nov '16

Facilitated and planned chapter executive events and student opportunities.

### **Distress Volunteer, Crisis Intervention & Suicide Prevention Centre of BC**

Sept '13 - Jun '16

Empowered clients to meet their own needs via active listening on the phone and online.