

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), Databases (SQL), Info Retrieval

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 CS (Racket), Models of Comp, Computers & Society, Symbolic logic, Metatheory & Computability, Game theory

LANGUAGES AND TECHNOLOGIES

Languages: Java, C, Python (*Learning: HTML, CSS, Javascript, Typescript, SQL*)

Tools and Frameworks: Git, IntelliJ, Pycharm, VSCode, Vim, JUnit, Maven, VirtualBox, gdb, (*Learning: Angular*)

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

Design Software: Sketch, Invision, Marvel

RELEVANT EXPERIENCE

Teaching Assistant, Discrete Math, Northeastern University

Sept '19 - present

Graph Based Web Crawler

Sept '19

- Wrote a program to crawl Wikipedia pages with throttling support.
- Implemented custom HTML parsing logic for finding neighbouring nodes.

Python, Regex, HTML, VSCode

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

Mar - Apr '19

Distributed Movie Index and Search Engine

- Crawled ~50 files containing info on 5M movies and built a compact multi-layer index over the dataset.
- Built a query processor, an interactive CLI and a multi-threaded server using sockets to answer movie and search queries.

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

Personal website: <https://monicaibrahim.com>

Nov '17

HTML, CSS, Javascript, VSCode, Git

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, used research to design mock-ups and presented to broader engineering team.
- Platform has won several awards. Was presented at dozens of national conferences and to Microsoft CEO and EVPs.

Sketch, Invision, Mac OS

AWARDS & MORE

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

Nov '13

Co-president, UBC Golden Key Honors Society

Jul - Nov '16

Distress Volunteer, Crisis Intervention & Suicide Prevention Centre of BC

Sept '13 - Jun '16