

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, Information Retrieval, Web development, Parallel Data Processing

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, SQL, HTML (**Learning:** Javascript, CSS)

Tools & Frameworks: Git, JUnit, Maven, VirtualBox, gdb, MySQL, Clover ETL (**Learning:** Angular JS, React, MongoDB)

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

Design Software: Sketch, Invision, Marvel

RELEVANT EXPERIENCE

Teaching Assistant, Northeastern University

Sept '19 - current

CS5002 Discrete Math | CS5004 OOD in Java

Web-Based Search Engine

Sept '19

- Wrote a graph-based web crawler to scrape Wikipedia pages and build an inverted index system (using tokenized terms).
- Built a document ranking system (given a query) to return snippets of text from each of the top K documents.

Python, VSCode, Regex, HTML

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

Distributed Movie Index and Search Engine

Mar - Apr '19

- 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 concurrent 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 of this project. Interviewed users and designed prototypes.
- Platform has won several awards. Was presented at dozens of national conferences and to Microsoft CEO and EVPs.

Sketch, Invision

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