

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, JavaScript, TypeScript, C, Python, SQL, HTML, CSS

Tools & Frameworks: React, Redux, Angular, NodeJS, JPA, MySQL, MongoDB, mongoose, HBase, AWS EMR, AWS S3, MapReduce, Apache Hadoop, Git, JUnit, Maven, VirtualBox, gdb

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

Design Software: Sketch, Invision, Marvel

RELEVANT EXPERIENCE

Teaching Assistant, Northeastern University

Sept '19 - Apr '20

CS5002 Discrete Math | CS5004 OOD in Java

Career Search Forum (Web-App): <https://afternoon-sands-94723.herokuapp.com/>

Apr '20

JavaScript, React, Redux, NodeJS, MongoDB, mongoose, HTML, CSS, IntelliJ, Git

K-means Clustering: Movie Directors (from the IMDb movie dataset)

Apr '20

- Built a MapReduce job to group movie directors by some chosen traits and the ratings received for their movies.
- Preprocessed the raw dataset to flatten multi-dimensional vectors into single representative numbers.

Java, MapReduce, Distributed Systems, Apache Hadoop, Apache Pig, AWS EMR, AWS S3, Git

Web-Based Search Engine

Oct '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

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)

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