Shikib Mehri

Bachelor of Science | Honours Computer Science | Third Year

CONTACT

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SKILLS

Knowledgeable:
C++ • Java • JavaScript • C
Racket • gdb • LaTeX • git
Ruby • MySQL • Python
HiveQL • Presto • Spark
PHP • React.JS

Comfortable:
Android • Ruby on Rails • CSS
TACC • C# • HTML
y86 Assembly • node.js
UNIX • jQuery • Flask

WORK EXPERIENCE

FACEBOOK | Software Engineering Intern

May 2016 - Present

- Worked with the Ads Targeting Modeling team on generation, evaluation, and refinement of a user-interest mapping based on user-page interactions.
- Developed metrics and algorithms, in HiveQL, Presto and Python, to improve the precision of the mapping to higher than production.
- Constructed an incredibly accurate classification model, currently used in production, that predicts the correct categorization for a given interest.
- Wrote Hack/React.JS code to utilize the model and display results more effectively.

ARISTA NETWORKS | Software Engineering Intern

September 2015 - December 2015

- Implemented functionality in Python to check incorrectly configured network switches in order to avoid failures due to configuration issues during internal testing.
- Implemented the ability to pause linerate traffic, using C, C++ and Python, and used this to ensure that traffic only started proceeding the injection of all linerate packets.
- Modified C and C++ code to remove buffer overflow issues on the ingress queue of a linerate capable port when the traffic shaper was active.

UBC | Computer Science Teaching Assistant

September 2014 - August 2015, January 2016 - May 2016

- TA-ed CPSC 110 (Programming), CPSC 213 (Computer Systems), CPSC 313 (Hardware and Operating Systems).
- Lectured upper year students in CPSC 313 tutorials, as a second year student.
- Ran labs containing 30+ students, lectured in tutorials, invigilated exams, held office hours and graded.
- Received very high TA evaluations, scoring above 4/5 in all fields, with over 75% of students rating me a 5/5 in all categories.

PROJECTS

CONVERSATION ANALYSIS | Python, NLTK, d3.js

July 2016 - Present

- Developing application which analyzes conversation history and produces interesting and worthwhile visualizations.
- Displays information on conversation activity throughout the day, over time and per user.
- Determine topic sentiment over time and by different users, as well as user relationships in the chat.
- Currently developing a context-aware markov chain algorithm that will intelligently mimic a user's conversation activity.

UMPLE - MODEL ORIENTED PROGRAMMING LANGUAGE | Umple, Java, Ruby, PHP

Jan 2016 - May 2016 | https://github.com/umple

- Worked on an open-source model-based programming language that generates complete programs in a variety of languages from a single model-based source language.
- Implemented aspect-oriented features such as code-injections into user defined methods and ability to target Umple methods based on their parameters.

TRANSIT QUALITY AS AN INDICATOR OF BUSINESS TYPES | Python, SQL, JavaScript

November 2015 | http://shikib.ca/transit-vandata

- Analyzed a large dataset of Vancouver business licenses, along with self generated data on transit quality for different locations, to determine a correlation between business locations and transit quality for the VanData competition.
- Identified patterns that demonstrated that consumer-based businesses tended to exist in areas with higher quality transit. This however did not hold for more established and larger businesses which tended to be located in low transit areas.
- Awarded fourth place by the City of Vancouver and Big Data University, after presenting at the final round.

ZERO - NEWS AGGREGATOR AND SUMMARIZER | Django, Python

October 2015 | http://github.com/shikib/summarizer

- Developed a web application that provides a summary of recent news articles for a user inputted topic at DubHacks 2015.
- Independently designed an extractive summarization algorithm that identifies key sentences in a set of articles based on a relevance score, calculated using features supported by supervised learning, and a centrality score which applies PageRank on the cosine similarities of the tf-idf vectorizations of every sentence.

RDF DATASET DEDUPLICATOR | SPARQL, Python

October 2015 | http://github.com/taylorlloyd/uw_sparql

- Implemented strategies to eliminate duplicates in a resource description framework dataset with a high collection of errors/incorrectly valued attributes; done as part of the Undergraduate Research Opportunities Conference.
- Designed an algorithm, in order to increase efficiency, which blocked on equal valued predicates and did a naive comparison within the set of entities that had at least one matching attribute.
- Discussed linear time solutions, such as using locality sensitive hashing with a K-nearest neighbors algorithm to find "roughly similar" entities and then to use unsupervised learning with a match-distance comparison algorithm.

URO REX PROGRAM MENTOR/MENTEE MATCHING | C++

September 2015

- Solved the problem of matching a group (variable size for each mentor) of mentees to a particular mentor, given a set of preferences for each mentor and mentee.
- Reduced this problem to the Stable Matching problem and applied the Gale-Shapley algorithm to generate groups.

BETH TABLEAU | Java

April 2015

- Collaborated with a UBC philosophy professor and multiple students to create BETH Tableau a desktop application which aids in the creation and analysis of semantic tableaux.
- Personally responsible for the core functionality, which was to detect contradictions in propositional/predicate logic, and allow branches of a tableau to be opened/closed based on the existence of contradictions.
- Implemented multiple different modes of contradiction analysis, interpreted mode which incorporated user-inputted predicate contradictions and basic mode which defined a contradiction to be between a predicate and its negation.

PICKAPLACEFORUS | Java, Android, JavaScript, Node.js, Socket.IO

March 2015 | http://github.com/yeah568/foodvote

- Created a mobile application, as part of a team of five developers, that assists groups in choosing an optimal place to eat.
- Independently implemented retrieval of data from Google Maps API, Google Places API and Yelp API, as well as displaying the data in an auto-completion searchbar and an Android MapView.
- Designed the comparison algorithm that chooses the optimal restaurant, a greedy algorithm that asks users to compare between two locations (using proportion based selection) and uses this data to determine an overall optimal location.

AWARDS

2015

4th Place - DataSense VanData Competition
Semifinalist - HackerRank World Cup Contest
UBC Dean's Honour List
UWaterloo UROC Attendee
Top 10% - CodeEval
92nd Percentile - HackerRank
Top 20% - CounterCode 2015
Top 10% - HackerRank World Cup Qualifiers

2014

7th Place - Launch Academy Start-Up Challenge
UBC Dean's Honour List
UBC Chancellor's Scholar

2013

Top 10% - Michael Smith Challenge
1st Place Team - Math Challengers Regionals
Distinction Award - Fermat Math Contest
Certificate of Achievement - AMC 12
Scholarship Award - Canucks FEC

EDUCATION

UNIVERSITY OF BRITISH COLUMBIA

BSc in Honours Computer Science

September 2013 - May 2018 | 4.0 GPA

- Received a 4.0 cumulative GPA and a 4.33 GPA in computer science courses.
- Completed all of required third year CPSC courses, while still a second year student.
- Accepted to the Undergraduate Research Opportunities Conference at the University of Waterloo due to stellar performance in undergraduate courses.

UNIVERSITY TRANSITION PROGRAM

Early Entrance to University

Grad. May 2013

- One of 20 students to be accepted into the rigorous, highly-accelerated program that condenses five years of high-school into two.
- Completed the program, receiving a Dogwood Diploma, a District Award and acceptance to the University of British Columbia.