# Varun Rana

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Expected

### **EDUCATION:**

#### UNIVERSITY OF MICHIGAN, ANN ARBOR

B.S.E. Computer Science Engineering

- Data Structures & Algorithms
- Discrete Mathematics
- Web Databases & Information Systems
- Computer Organization
- Computer Security
- Data Mining

# December 2018

- Information Retrieval & Web Search
- User Interface Development
- Artificial Intelligence

### **WORK EXPERIENCE:**

AMAZON May 2018-Software Engineering Intern - Alexa AI August 2018

- Software Engineering Intern Alexa Ai
- Implemented new workflow for Amazon developers to submit requests to access to certain data within the Alexa Machine Learning Data Platform. (Java, AWS DynamoDB)
- Simplified request verification process by creating a new webpage for data owners to view requests and grant/reject access with the click of a button, promoting greater data privacy. (Java, Ruby on Rails)
- Created dashboard for customers to view status of all access requests they've submitted, increasing transparency and enhancing the overall customer experience. (Java, Ruby on Rails)

TARGET
June 2017Software Engineering Intern - Logistics Technology
August 2017

- Refactored code for APIs that support Target's supply chain. (Java)
- Automated production change request submissions by manipulating the team's Continuous Delivery pipeline.
- Wrote queries automate the transfer of production data into the development and test environments. (SQL)

# U-M CENTER FOR STATISTICAL CONSULTING & RESEARCH Research Assistant - Data Mining September 2016December 2016

- Preprocessed and analyzed dataset of over three million traffic stops in the city of Chicago from 2009-2015.
- Implemented frequency analysis algorithms to discover seasonal trends and common demographical traits in traffic offenders. (Python)

#### **BLUE CROSS BLUE SHIELD OF MICHIGAN**

Software Engineering Intern - Data Mining

- Queried database to gather user data for BCBSM's market research initiatives. (SQL)
- Regression tested the BCBSM quoting tool to ensure 2016 business requirements were met.

## **PROJECTS:**

#### YELP++

Data Analytics Tool

• Standardizes Yelp ratings in a given search query and uses statistics to compare ratings with one's home city, ensuring users can make well-informed decisions. (Python)

#### WEB DATABASES & INFORMATION SYSTEMS (EECS 485)

Photo Sharing Application

- Supports multiple users, password encryption, privacy configuration, and profile personalization. (HTML/CSS, Jinja2, Javascript, Python/Flask, SQL)
- Developed RESTful API to dynamically load user and photo data. (Python/Flask, JavaScript, SQL)

# **EXTRACURRICULARS:**

#### THETA TAU - PROFESSIONAL ENGINEERING FRATERNITY

President

• Overseeing operations of entire fraternity, working towards strengthening corporate relations, brother bonding, and alumni involvement.

April 2017-December 2017

May 2015-August 2016

#### UNIVERSITY OF MICHIGAN JAZZ LAB ENSEMBLE

Tenor Saxophone

• Studied traditional jazz big band standards and performed throughout the semester.

# **LANGUAGES:**

PROFICIENT: C++, Java, Python, SQL

BASIC: HTML/CSS, Javascript, Ruby on Rails

December 2017

September 2015-December 2016