Varan Culanathan

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EDUCATION

UMASS AMHERST
B.S. in Computer Science
Expected May 2018 | Amherst, MA
Cumulative GPA: 3.98 / 4.00

Coursework
Software Engineering
Discrete Mathematics
Introduction to Probability
Functional Programming
Data Structures

LANGUAGES

Proficient:
Java, Python, Bash, SQL, LaTeX

Familiar:
C, Scala, Javascript

ENGINEERING

Infrastructure: AWS, Ansible, Docker, Jenkins, Terraform
Databases: MongoDB, SQL
Backend: Node.js
Native: Android

AWARDS

Course Citation   May 2017
Discrete Mathematics
Ranked #15 in a class of 200+ students.

Course Citation   Dec 2016
Computer System Principles
Ranked #2 in a class of 150+ students.

Course Citation   Dec 2015
Data Structures
Ranked #4 in a class of 150+ students.

PROJECTS

Minesweeper   Jun 2016
A complete version of Minesweeper with fully functionial GUI and custom art. *Java*

KeyFinder   Jan 2015
Control a person in a two-dimensional maze to find a hidden key. *Java*

WORK EXPERIENCE

TRINETX | Software Engineering Intern
May 2017 – Sep 2017 | Cambridge, MA
- Worked with the Infrastructure Team to develop automation and deployment utilities using Python, Bash, Ansible, Jenkins, and AWS Lambda.
- Improved and increased automation of appliance provisioning process, resulting in a more defensive design with greater configuration options.
- Created a set of utility scripts to obtain the health status of appliances based on network connectivity, port connectivity, and NIC bond configuration.
- Performed ad-hoc tasks to improve monitoring and maintenance of AWS.
- Assembled server hardware and provisioned servers into appliances for shipment to healthcare organization sites

TRINETX | Implementation Analyst Intern
May 2016 – May 2017 | Cambridge, MA
- Worked with the Client Services and Software Engineering Team to assist in the provider site onboarding process and add customer-requested features using SQL and Java.
- Designed and implemented feature to export audit and query history pages to CSVs.
- Wrote and tested SQL Scripts to assess the cleanliness of healthcare organizations' databases.
- Completed data refreshes, data ingestion, and data mapping of healthcare organizations' data.

UMASS AMHERST | Teaching Assistant
Sep 2016 – Jan 2017 | Amherst, MA
- Helped teach the introductory computer science course offered at UMass.
- Led discussion sections with other TAs and met weekly with the professor to modify and improve discussion sections to suit students' needs.
- Graded homework and project submissions by students.

RESEARCH

RBR LABORATORY | Research Assistant
Oct 2015 – May 2016 | Amherst, MA
- Worked under Professor **Shlomo Zilberstein** to investigate the methodology used to calculate the impact factor of a journal.
- Developed efficient crowd-sourcing techniques to gather a dataset of over 1000 publications from a set of journals for analysis.
- Created a tool to calculate the impact factor of a journal for any given year and perform basic data analytics to measure how it would be altered in certain situations.

IESL LABORATORY | Research Assistant
Oct 2015 – Sep 2016 | Amherst, MA
- Worked under Professor **Andrew McCallum** to develop an efficient crowd-sourcing method to extract large lists of information from CVs.
- Designed a pipeline to obtain a knowledge base of 5000+ professors and graduate students to be used in determining conflict of interest for peer reviews.
- Research was accepted by Massachusetts Statewide Undergraduate Research Conference (April 2016).