

Mustaf Ahmed

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EDUCATION

University of Minnesota Twin Cities

Bachelor of Arts in Computer Science

Minneapolis, MN

Sept. 2016 – May 2021

EXPERIENCE

Undergraduate Research Assistant

University of Minnesota

Sept 2018 – March 2019

Minneapolis, MN

- Programmed a movement based language scheme for land robots, which allowed robots to communicate with humans
- Implemented Natural Language Processing algorithms to automatically grade answers given by participants of a study
- Research resulted in a paper: <https://arxiv.org/abs/1903.03134>

Software Engineer Internship

Infinite Campus

June 2018 – August 2018

Blaine, MN

- Created a tool to display database schema changes between releases using Python
- Used Confluence REST API to publish schema changes to a wiki page
- Developed a program to manage issue numbers for SQL scripts. The program implemented user prompts, connected to a database and executed SQL statements. Used Groovy and SQL

Software Engineer Internship

Infinite Campus

June 2017 – August 2017

Blaine, MN

- Developed a distributed load testing platform that utilized Docker containers configured with JMeter; Used Bash scripting, Python and Flask
- Our platform reduced the amount of CPU and memory usage in comparison to the previous platform
- Allowed for customization and execution of test plans through the command line as well as a user interface

PROJECTS

Pelgine | *Python, Flask, SQL, NumPy*

June 2020 – Present

- Developed Flask web-application to search thousands artworks by color scheme
- Mathematically defined distance measure between color scheme data, and used this definition to efficiently search in $\mathcal{O}(\log n)$
- Reduced search time from approximately 10s to less than 1s
- Screenshot (project still in development) : <https://i.imgur.com/UXjR51W.png>

TECHNICAL SKILLS

Languages: Python, Java, C/C++, SQL, JavaScript, HTML/CSS

Frameworks: Flask, Django

Developer Tools: Git, Docker, Visual Studio, PyCharm, IntelliJ, Eclipse

Libraries: pandas, NumPy, Matplotlib