RACHEL WESTRICK

Undergraduate Computer Science Student

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EDUCATION

University of Michigan

Bachelor of Science in Computer Science
Minor in Community Action and Social Change

Sept 2017 – April 2021 Ann Arbor, MI

- GPA: 3.76/4.0

EXPERIENCE

Google Counter-Abuse Technology

Software Engineering Intern

May 2020 – August 2020 Sunnyvale, CA

- Deployed data exploration, visualization, and analytics tool for image similarity system used by the child safety team
- Integrated tool with Google's anti-abuse infrastructure to help engineers analyze and debug metadata related to sensitive content
- Built tool as crucial component that helps improve the hash matching algorithm that detects and reports such content to the National Center for Missing and Exploited Children (NCMEC)

Google Cloud

Engineering Practicum Intern

May 2019 – August 2019 Sunnyvale, CA

- Developed analytical tool to detect performance and efficiency regressions for new features to Dataflow Batch, a Google Cloud service for executing Apache Beam pipelines
- Leveraged Google's internal library for writing parallel data-processing pipelines in C++ to filter, aggregate, process, and compare execution logs into evaluation sets and job metrics
- Built SQL script and dashboard to display results of A/B comparison to analyze the impact of the rolled-out feature, enabling stakeholders to make data-driven decisions

Dematic Corp.

Software Development Intern

June 2018 – August 2018 Grand Rapids, MI

- Worked as a software engineering intern in a Scrum development team environment on continuous integration, system testing, and performance testing for Dematic IQ software
- Maintained continuous integration infrastructure handling building, deployment, and testing of software projects heavily using Maven, Jenkins, Artifactory, and cloud-based servers
- Used Logstash and Elasticsearch to parse data from product tests and used the Kibana plugin to build visualization dashboards to monitor test code coverage and product performance testing

University of Michigan

EECS 280 + 376 Study Group Leader and Tutor

October 2017 – March 2020 Ann Arbor, MI

- Organized lesson plans covering material in Programming and Introductory Data Structures and Foundations of Computer Science

COURSEWORK

- Computer Vision (EECS 442)
- Intro to Machine Learning (EECS 445)
- Mobile App Development (EECS 441)
- Web Systems (EECS 485)
- Intro to Computer Security (EECS 388)
- Data Structures and Algorithms (EECS 281)

PROJECTS

GitGood Project

Battle of the Schools Hackathon 3rd Place

- Created web app that displays visualizations of project commit lengths, time of commits, emotional analysis of commit messages, and other GitHub repository statistics
- Employed IBM Watson Sentiment Analysis API implemented back-end of visualization tracking emotional progression of programmer over the course of a project

Creative AI & NLP

- Trained Natural Language Processing model to take input lyrics and output original, grammatical lyrics in the style of the input
- Leveraged NLP concept N-Gram and NLP technique Language Modeling within the NLTK package to process, analyze, and generate grammatically correct lyrics in both English and Spanish

Strategic Reasoning Group

- Developed programs to analyze financial benchmarks on their ability to reflect the fair value of relevant assets and their robustness against efforts at manipulation and disruption

Design for America

- Applied design thinking strategies to partner with Avalon Housing and design furniture for their disabled members
- Collaboratively ideated, designed, and prototyped possible solutions. Evaluated feedback from six users to improve prototypes

UM Institute for Social Research

- Conducted academic literature review and news research on human rights issues regarding conservation and indigenous land rights in East Africa

SKILLS

C++, C, Java
Python, SQL, Jenkins
C#, Go, Bash, JavaScript