Daniel Woldegiorgis

22959 E Smoky Hill Rd, Aurora, CO • 301-661-0707 • dww2@williams.edu • GitHub: ethioeph

Education

Williams College, Williamstown, MA June 2020

Bachelors of Arts, Computer Science

- Relevant Coursework:
  - **Computer Science**: Algorithmic Problem Solving with Robots, Data Structures and Algorithms, Design and Analysis of Algorithms, Computer Organization, Theory of Computation, Human Computer Interaction, Parallel Processing, Functional Application Development, Storage Systems, Applied Algorithms
  - **Math/Stat**: Statistics and Data Analysis, Regression and Forecasting, Multivariable Calculus, Linear Algebra, Discrete Mathematics, Abstract Algebra, Probability, Graph Theory, Catching Robbers and Spreading Information (Senior Seminar)

Saint Joseph High School June 2016

- Graduated with High Honors, GPA **4.0**

Employment Experience

GolemanEI - ***Software Developer*** June 2020 - present

- Working on creating an assessments application for Android and IOS using React Native.

Service Management Group - Kansas City, MO, ***Associate Data Science Intern*** January 2020 - February 2020

- Built a Named Entity Recognition (NER) Machine Learning model that was deployed into production.
- Used Deep Learning models to improve existing NER model from 80% to 95% F1-Score.

Williams College - Williamstown, MA, ***Peer Tutor*** September 2018 - June 2020

- Help Students understand the course material in CS 134, CS 136, STAT 201, and MATH 250.

Williams College - Williamstown, MA, ***Student Technology Consultant*** September 2016 - June 2020

- Diagnosed and troubleshooted different computer problems and learned all necessary skills on the job.
- Helped both faculty and students with network issues and protection against malicious software.

Research Experience

Williams College - Williamstown, MA, ***Research Assistant*** June 2018 - August 2018

- Implemented DBSCAN algorithm using KD-Data structure for faster neighborhood queries. Time complexity changed from O(n) to O(log n) for each neighborhood search.
- Used C++ and OpenMP to parallelize computation significantly reducing the processing time.
- Implemented ST-DBSCAN - an algorithm to determine spatial and temporal similarity among events for clustering tasks.

Projects

Firestone September 2019 - Present

- An ongoing game project that resembles a popular online card game called Hearthstone. Built in Clojure.

Edge Detection November 2019 - December 2019

- An implementation of an edge detector that uses the Sobel Convolution Kernel to obtain changes in intensity of images. Optimized the expensive convolution operation for GPU using CUDA. Built in C.

JScribe July 2019 - August 2019

- A turing-complete programming language with tail call optimization and dead code elimination. Built in Javascript.

WAVE (WArm Virtual Emulator) April 2019 - May 2019

- Built an emulator that loaded ARM instructions into the memory of an Intel x-86 processor with a focus on reducing memory footprints and number of instructions executed in simulating programs.

Skills

- **Proficient:** C, JAVA, R, HTML, React, Redux, Javascript
- **Familiar:** Python, Clojure, Ruby On Rails, CSS, LaTex, Scrum, ML, Jira, SQL, CI/CD, AWS, Puppeteer