Daniel Engbert

Software Engineer

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Education

University of Maryland Baltimore County (UMBC) — *Baltimore, MD*

Bachelor of Science in Computer Science, with a minor in Mathematics, GPA: 3.7/4.0 — *May 2019*

Experience

Scale AI — *San Francisco, CA*

Product Engineer — *Feb. 2021 - June 2021*

- Developed a full stack (self service) tool for customers to upload data (e.g. images, documents) and receive a labeled dataset for training their AI algorithms. Automated assigning workers to labeling a project's data, managing their assignment with automated training courses and quality control mechanisms (using React, Node.js, and MongoDB).
- Presented system demos and provided support to customers to reach their project goals; ultimately enabling higher quality datasets for their machine learning applications.

Robotic Research LLC — *Gaithersburg, MD*

Software Engineer — *June 2019 - Jan. 2021*

- Supporting the development of autonomous software for the electric shuttle Olli. Lead the deployment/mapping process for new autonomous routes across several cities.
- Created a web app for searching/downloading data (stored in the cloud) collected from fleets of autonomous vehicles around the world (utilizing Flask, and various AWS services).

Robotic Research LLC — *Gaithersburg, MD*

Computer Vision Intern — *June 2018 - Aug. 2018*

- Trained/evaluated a neural network on several datasets to perform object detection in photos. Wrote Python scripts to convert various datasets into a common format for training.
- Created a C++ camera driver for a computer vision system in a ROS pipeline.

AT&T — *Columbia, MD*

Software Developer Intern — *May. 2017 - Dec. 2017*

- Improved a network security tool by writing shell scripts to manage a Hive database built on top of a Hadoop Distributed File System, and by integrating a deep packet inspection C library into the tool. Participated in (Agile) code reviews and sprint planning.

Imaging Research Center at UMBC — *Baltimore, MD*

Full Stack Web Developer Intern — *June 2016 - Aug. 2016*

- Helped develop retrieverstories.umbc.edu (a social media site for current/former students to share their experiences). Developed new features using PHP, SQL, HTML, and CSS.
- Created a framework to safely predict the performance and correctness of worker processes handling concurrent requests from a production environment. Preemptively caught and fixed regressions related to increased cpu instructions, caching, and global state contamination.

Projects

A.I. Algorithms

- Implemented a feed forward neural network from scratch in Python using NumPy. Studied the linear algebra and calculus needed to implement backpropgation through an online course and validated the performance on the MNIST dataset.
- Implemented the Hill Climbing and Simulated Annealing optimization algorithms in Python to optimize employee shift schedules with respect to a heuristic function.
- Implemented a decision tree, the kmeans classification algorithm, as well as tf-idf for practicing NLP.

global-board.org

- Designed and implemented (as a solo side project) a website for helping people learn about other countries and cultures. Allowing users to see the songs trending in each country, as well as twitter trends, and the best YouTube videos for learning about the country (e.g. history/travel/culture). The website is implemented with React, Node.js, and PostgreSQL and is hosted on Google Cloud with automated scripts for pulling data about each country from YouTube, Spotify, and Twitter.

Skills

Languages	Python, Java, JavaScript, C, Ruby, Hack, Scheme
Frameworks	Django, Jenkins, Chef, React, Angular, Flask, AWS, Docker, GraphQL