Daniel Engbert

end1@umbc.edu 410-776-1195 Forest Hill, MD
portfolio: github.com/dangbert

Education

University of Maryland Baltimore County (UMBC) — May 2019

- Computer Science Major, Math Minor
- 3.7 GPA, 135 Credits

Work Experience

Computer Vision Intern, *Robotic Research LLC* — Summer 2018

Trained a Caffe2 neural network on several datasets to perform object detection within a Docker environment and wrote Python scripts to convert various datasets to a common format. Created a C++ camera driver for a computer vision system in a ROS pipeline.

Software Developer Intern, *AT&T* — 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.

Full Stack Web Developer Intern, *UMBC Imaging Research Center* — Summer 2016

Added a major feature to retrieverstories.umbc.edu (UMBC's social media site) allowing users to discover and group related posts into a public collection. Created the full-stack solution for this feature using PHP, SQL, HTML, JS (with jQuery), and CSS.

Assistant Programming Instructor, *Black Rocket Productions* — Summer 2014

Taught programming skills to middle schoolers at a technology summer camp.

Projects

spearopedia.com – *Personal Project* — 2017

Created a website to help people browse and compare spear-fishing equipment. Hosted the site on AWS using Python, Flask and a PostgreSQL database. Implemented user accounts, an admin page for adding new products to the database, and unit tests.

Where to Live – *Course Project* — 2018

Created a website for users to discover the optimal places to live based off search criteria. Identified several data sources to use, designed an SQL schema, and created scripts to ingest the data into the database (queried a web API for data about every county in the U.S. and merged the data with ingested .csv files). Hosted the site with Apache on AWS.

Ray Tracer – *Course Project* — 2018

Designed a ray tracer in C++ capable of rendering images and videos of 3D scenes with shading, shadows, and reflections. Also implemented a rasterizer and mesh smoother.

A.I. Algorithms – *Course Project* — 2017

Implemented the Hill Climbing and Simulated Annealing optimization algorithms in Python to optimize employee shift schedules with respect to a heuristic function.

Skills/ Involvement

Programming and Tools

- Python, C++, C, Shell Scripts, Java, R
- Flask, SQL, PHP, Node.js, React, JavaScript, HTML, CSS
- Linux, Docker, Apache, Git, SVN, Android Studio

Software: SolidWorks, SketchUp, EAGLE CAD, Photoshop

Electronics: Extensive Arduino and PIC microcontroller experience

Languages: Spanish (intermediate level)

Involvement:

- TA (1 year), Resident Assistant (2 years), and C++ Tutor (1 year)
- UMBC Environmental Task Force Club
- UMBC Hackers Club (participated in 5 Hackathons)
- Eagle Scout