Daniel Engbert

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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. Created a C++ camera driver for a computer vision system and performed stereo vision with ROS.

Software Developer Intern, *AT&T*   Summer 2017
Worked on an Agile team to improve a network security tool by integrating a deep packet inspection C library into the tool and by writing shell scripts to manage a Hive database built on top of a Hadoop Distributed File System.

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. I created the full-stack solution for this feature (created the frontend UI and backend PHP code for endpoints allowing database search, and the creation/editing of collections).
Also collaborated with the rest of the team to identify and fix various bugs with the site.

Assistant Programming Instructor, *Black Rocket Productions*   Summer 2014
Taught programming skills to middle schoolers at a technology summer camp.

Projects

Where to Live – *Group Project* ⬡   2018
Created a website for users to discover the optimal places to live based off search criteria. My team identified several data sources to use, and I designed an SQL schema and created scripts to ingest the data from the sources into the database (queried a web API for data about every county in the U.S. and merged the data with ingested .csv files). Also created a web API endpoint enabling the final database to be searched and hosted the site 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.

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 an SQL database. Implemented user accounts and a login for an admin to access a UI for adding new products to the database. Also created unit tests to test functionality when changes are made to the site.

Skills/ Involvement

Programming and Tools
- Python, C++, C, Shell Scripts, Java, R
- Flask, PHP, SQL, Node.js, React, JavaScript, HTML, CSS
- Linux, 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