





Daniel Engbert

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 portfolio: github.com/dangbert

Education	University of Maryland Baltimore County (UMBC) Computer Science B.S with a minor in Mathematics (3.7 GPA)	May 2019
Work Experience	Software Engineer, Robotic Research LLC Software engineer supporting the development of autonomous software for the electric shuttle <i>Olli</i> . Lead the setup/mapping process for new autonomous routes across several cities. Created a web app for searching/downloading data collected from fleets of autonomous vehicles and stored in the cloud (utilizing Flask, and various AWS services). Computer Vision Intern, Robotic Research LLC 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. Software Developer Intern, AT&T 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 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.	June 2019-Present Summer 2018 May 2017-Dec 2017 Summer 2016
Projects	Where to Live – Course (Team) Project  Created a website for users to discover the optimal places to live based off desired criteria. Identified suitable 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 other sources). Hosted the site with Apache on AWS. YouTube Channel Filmed/edited over a dozen YouTube videos ranging from teaching coding concepts and photo editing, to travel videos and tips. Ray Tracer – Course Project  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  Implemented the Hill Climbing and Simulated Annealing optimization algorithms in Python to optimize employee shift schedules with respect to a heuristic function. Also implemented a simple neural net for classifying handwritten digits.	
Skills/ Activities	Programming and Tools: <ul style="list-style-type: none">Python, C++, C, bash scripts, R, JavaReact, Flask, SQL, PHP, Apache, Docker, Android Studio, JavaScript/HTML/CSS Software: SolidWorks, SketchUp, EAGLE CAD, GIMP, Davinci Resolve Electronics: Extensive Arduino and PIC microcontroller experience Foreign Languages: Spanish (C1 level), Portuguese (A2 level) Involvement: <ul style="list-style-type: none">TA (1 year), Resident Assistant (2 years), and C++ Tutor (1 year)UMBC Environmental Task Force ClubUMBC Hackers Club (participated in 5 Hackathons)Eagle Scout (2014)	