Achilles Dabrowski

Greater NYC Area
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EDUCATION

Duke University, Durham, NC GPA: 3.63/4.00 May 2022

- ***Major:*** B.S. in Computer Science and Electrical and Computer Engineering (ECE)
- ***Relevant Coursework***: MATH216: Linear Algebra; ECE230: Microelectronic Circuits & Devices; ECE280: Intro to Signals and Systems; ECE250: Computer Architecture; COMPSCI308: Advanced Software Design & Implementation; MATH238: Data Analysis and Decision Sciences; COMPSCI310: Intro to Operating Systems; ECE590: Human-Centered Computing (Graduate-level); ECE270: Fields and Waves

WORK EXPERIENCE

CACI, *Computer Science/Electrical Engineering Intern,* CACI International, Inc. May – Aug. 2020

- Developed a web application, Weaver, that provides a simple user interface for building complex private networks that obfuscate traffic using VPNs
- Product will connect various virtual machines served by cloud platforms such as GCP, AWS, and Azure
- Leveraged a Go web server to populate Go templates that are served to the client
- Nodes can be dragged and dropped into the canvas with JointJS to easily visualize the network and configure it

Con Edison Clean Energy Businesses, *IT Summer Intern,* Con Edison, Inc. Jun. – Aug. 2019

- Created a new Ethics & Compliance Intranet site with the input of the COO
- Embedded my own custom OSIsoft PI solar and wind asset monitoring displays on two Intranet sites
- Proposed solutions to the CEO's Intranet site action items to enhance the site experience

PROJECT EXPERIENCE

UAS Software Control Interface, *Independent Study (Collaborative);* Python, Olympe, Sphinx, Gazebo Aug. 2020 – present

- Controls Parrot ANAFI at a distance with first-person view (FPV) as part of the Rainforest XPRIZE college competition
- Arcade-style controls limit the motion of the drone to the direction that its camera is facing along with turns

GuideDog, *Hackathon (Collaborative) - HackDuke 2020;* Python, OpenCV, YoloV3, GTTS Dec. 2020

- AI-based narration camera for the visually impaired that uses the pre-trained image recognition model, YoloV3
- Google's text-to-speech surface is used to narrate the objects identified by the camera
- Awarded Best Inequality Track Hack as well as the Wolfram Award at HackDuke 2020

Timeturner, *Class (Collaborative) – ECE590: Human-Centered Computing;* UWP, C#, Figma, Fusion 360 Sept. – Nov. 2020

- Smart activity tracker and companion app to address college student work-life balance concerns amid the pandemic
- Features a dodecahedron, a 12-sided device wherein each face represents an activity set by the user
- The companion app provides insights to users about how well they are managing their own schedules
- Project and presentations were selected by our professor to be used as examples of exemplary work in future semesters

EASEPAPR, *Personal (Collaborative);* Fusion 360, Markdown Mar. – May 2020

- Designed and currently improving an open-source Powered Air Purifying Respirator (PAPR) device that may be used as PPE in the event that other forms of conventional PPE are unavailable
- Constructed largely using off-the-shelf consumer components that focus on the powered filtration unit

LEADERSHIP EXPERIENCE

Duke Academy of Model Aeronautics (AMA), *President Elect*, Duke University Mar. 2020 - present

- AMA aims to make unmanned aerial systems (UAS) more accessible to students on campus from a myriad of technical and academic backgrounds via enrichment activities and participation in AUVSI-SUAS

SKILLS

Languages: Java, C++, C, Go, JavaScript, HTML, CSS, Python, Dart, MATLAB, MIPS, Markdown

Technologies: Git, Linux, Terminal, Google Cloud, BigQuery, Microsoft Azure, Figma (UI design), MIPS, MATLAB, Arduino, Fusion 360, car audio, car infotainment, commercial drone piloting