github.com/jwadehyun | linkedin.com/in/jwadehyun

#### **EDUCATION**

University of Washington, Seattle, WA

Bachelor of Science, Electrical & Computer Engineering, Minor in Mathematics

Concentration in Digital Signal Processing

Relevant Coursework: Data Structures & Algorithms, Database Systems, Programming Concepts & Tools, Computer Programming I & II, Digital Design, Digital Imaging Systems, Technical Communications

## TECHNICAL QUALIFICATIONS

- Languages (Proficient): Java, Python
- Languages (Familiar): SQL, MySQL, Verilog, C++, HTML, CSS, Javascript
- Libraries / Frameworks: OpenCV, TensorFlow
- Tools: Git Version Control, Bash, LaTex

### **WORK EXPERIENCE**

**Intern,** Puloon Technology

July 2020 – August 2020

Graduation: June 2021

- Created a program using Java that implements various image processing methods to determine whether or not Euro bills inputted are counterfeit
- Implemented various edge detection methods such as Canny Edge Detection to accurately segment images
- Worked with CNNs and Tensorflow to understand how the process could be optimized

### **PROJECTS**

Exit Burr Entrepreneur Capstone, Boeing & ENGINE Capstone

January 2020 – June 2020

- Entrepreneurial project where my team partnered with Boeing to work on industry sponsored projects
- Designed a device that implements image processing, computer vision, optics, and electromagnetics to accurately measure the size of exit burrs
- Collaboratively worked with teammates, industry mentors, and faculty mentors to design, research, and prototype innovative ideas
- Implemented the prototype using various tools such as OpenCV, 3D Printers, optic lenses, and cameras
- Presented in the UW Capstone fair as well as the Boeing showcase in front of 500+ people

# Image Modifier GUI, University of Washington

December 2020

- In Python, developed a program that allows the users to implement various photo effects (blur and "cartoonize") on their photos
- Created a GUI that allows the user to pull up desired photo, select an effect that they would like to implement, and determine the strength of the filters

### Husky Maps, Projects

December 2019

- Used Java to create a map of the Seattle area that could be used to locate stores and find optimized paths
- Created and implemented data structures such as A\*Graphs, Binary Range Search, and KD Tree in order to create features such as autocompleted search and finding the most efficient route

### "Shazam," University of Washington

December 2019

• In python made a simplified version of "Shazam," that fingerprints short audio clips to match other songs in the database

## **EXTRACURRICULARS**

Phi Sigma Rho National Sorority, V:X Dance Crew