# WEI-CHEIH (WINSTON), SUN

wsun12@uw.edu, https://w-sun12.github.io/ www.linkedin.com/in/win-sun-msece/

#### **EDUCATION**

University of Washington - Seattle, WA

- Expected Graduation: June 2023
- M.S. Electrical and Computer Engineering
- Planned Coursework: Probability and Statistics, Operating Systems (Planned), Hardware/software Interface (Planned), Introduction to Database Systems

## National Taiwan University (NTU) – Taipei, Taiwan

- B.S. Mechanical Engineering
- Relevant Coursework: Data Structure and Algorithm, Introduction to Artificial Intelligence and Machine Learning, Computer Programming Language, Using R for Data Analysis

Additional Education Coursework: Object-Oriented Programming, Linear Algebra, Discrete Mathematics

#### **SKILLS**

- Programming (by familiarity): python (most familiar), C, C++, SQL, MATLAB, C#
- Tools: Git, Bash, SolidWorks, Creo, LabView, MasterCAM Linguistic: Chinese(native), English(fluent), Japanese(basic)

#### SELECTED PROGRAMMING EXPERIENCE

**T-Mobile Home Internet Project**, @University of Washington

January 2022 – June 2022

Graduation: February 2020

- Implemented 3+ fundamental concepts of machine learning through the Capstone Project (Python)
- Learned concepts of 4+ data models to optimize and differentiate different machine learning problems
- Tested and optimized common methods mapping from raw data to data prediction with 70% accuracy

#### GloVe Programming Project, @University of Washington

September 2021 – December 2021

- Implemented 3+ functions that could analyze the similarity of 50-dimensional pre-trained word data with the use of Pandas library (Python)
- Integrated the concept of the Cosine Similarity algorithm to find analogies and puzzle riddles of words
- Communicated with 5+ people to discuss of the appropriate way to optimize the algorithm

#### Gas Powered Automobile Project, @NTU

February 2018 – June 2018

- Programmed Arduino board controlling the 5 sensing sensors and 2 steering motors of the vehicle (C language)
- Designed an automobile which follows black duct tape in given 4 different routes of different situations
- Analyzed Wind Field produced by the propeller, and improved the thrust by 5%

#### OTHER EXPERIENCE

Intern, Advanced Medical Device Laboratory @NTU

September 2017 – June 2018

- Pioneered a prototype device for the Automation of Vascular Interventional Surgery
- Manufactured 50 pieces of 3D printing and laser cutting components to construct the alignment device and cardiac catheterization feeding machine (SolidWorks, Creo)
- Optimized experiments on force feedback system on Arduino (C language), minimizing the delay by 12%

### Vice President, Balloon Design Club @NTU

August 2018 - June 2019

- Led a student organization of 20 people whose goal is to encourage leadership through serving others
- Achieved Best Booth Award in NTU school anniversaries & NTU Azalea Festival
- Focused on visualization artwork and growing the club from 20 members to 40 members over the semester, offering a platform for everyone to not only demonstrate skills, but make friends and find community