George Gao

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EDUCATION

Carnegie Mellon University
Pittsburgh, PA
Class of 2023
Bachelor of Science in **Electrical Computer Engineering & Robotics**
GPA : 4.0/4.0

Coursework

Introduction to Computer Systems

Fundamentals of Programming

Principles of Imperative Computation

Introduction to Functional Programming

Electronic Devices and Analog Circuits

Introduction to Robotics

Signals and System

Technical Skills

Python

C/C++/x86 Asm

SML

Matlab

HTML/CSS/Javascript

Altium

TECHNICAL EXPERIENCE

Software Engineering Intern | STERIS | OH | *May 2021 - Present*

- Researched, presented, and implemented One Time Password algorithms in C for in market devices
- Implemented international language support in C++ for in-development embedded ARM device
- Implemented a Python script to integrate excel translations into C++ code to for easy changes in translations
- Wrote python script to translate existing excel documentation into LaTeX used by the team in architecture document
- Utilized SVN, GIT, and Code collaborator to source, document, and version control code

Principles of Imperative Computation (15-122) Teaching Assistant | CMU | Remote | *Jun 2021 - Present*

- Led and taught recitation of 30+ students every week
- Held office hours three times a week to answer conceptual, code and homework questions as well as debugged code

EE/Security Intern | Buzr. | NY | *Jan 2021 – Feb 2021*

- Ran, integrated, and analyzed security penetration tests for Android, IOS, AWS environments
- Managed, created, and QAed custom Altium components

ENGINEERING PROJECTS

Malloc Implementation | *April 2021*

- Solution utilized implicit and doubly linked lists and segregated linked list for free nodes, and header bit metadata for dynamic memory allocation in C

Proxy Server | *May 2021*

- Implemented multithreaded, caching proxy server in C
- Handled HTTP GET requests

Sun Sensor | Aug 2020 – Present

- Designed PCB Sun Sensor in Altium that determines the Sun's angle with 6 photodiode arrays
- Implemented SPI in C on the board
- Implemented I2C C code between two MSP430s to emulate power monitoring

Hack 112 | *Apr 2020* | *(2nd place Award)*

- Used Natural Language Processing and web scraping to determine genres of books by analyzing text excerpts