GEORGE GAO

Employment

Meta
NYC
Software Engineer Intern — May 2022 to Aug. 2022
- Built core persistence feature of Scenes App in **Swift** and **ObjC**
- Integrated backend to save user experiences with **AR** objects and image filters on local **iOS** storage
- Polished and designed **UI/UX** of feature with animations

Steris
Mentor, OH
Software Engineer Intern — June 2021 to Aug. 2021
- Researched, presented, and implemented a **One Time Password** feature in **C** for **embedded** ARM devices
- Implemented international language support in **C++** for in-development **embedded** ARM devices
- Used **Python** to integrate multi-language strings from excel into **C++** code to easily update code base
- Wrote Python script to translate existing excel documentation into **LaTeX** used by the team in architecture document
- Utilized **SVN**, **GIT**, and Code Collaborator for version control

Carnegie Mellon University
Remote
Principles of Imperative Computation (15-122) Teaching Assistant — June 2021 to Aug. 2021
- 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

Projects

Sun Sensor
Aug. 2020 to May 2021
- 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

Proxy Server
May 2021
- Implemented **multithreaded**, **LRU caching proxy server** in **C**
- Handled **HTTP GET** requests

Malloc Implementation
Apr. 2021
- Implemented a dynamic **memory allocation** program in C **optimized** for throughput and memory utilization using a better fit algorithm
- Kept track of allocated memory with an implicit and **doubly linked list** and tracked metadata in **bit** headers

Hack 112 (2nd place Award)
Apr. 2020
- Used **Natural Language Processing** and **web scraping** to determine genres of books by analyzing text excerpts

Activities

180 Degrees Consulting · Mentor — Jan. 2020 to Current

Kappa Sigma Fraternity — Jan. 2020 to Current

Eta Kappa Nu Honor Society — Jan. 2021 to Current

Contact

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- ⌂ gxgao

Education

Carnegie Mellon University
Aug. 2019 to Current

BS Computer Science 2023

BS Electrical & Computer Engineering 2023
Dual Degree

Skills

PROGRAMMING LANGUAGES
C / C++ / x86 ASM
Python / Golang / SML / Matlab
Swift / ObjC
System Verilog
HTML / CSS / JavaScript
LaTeX

TOOLS
NumPy / Matplotlib
Selenium / Beautiful Soup
SwiftUI / UIKit
Unix Command Line / Git / Mercurial

Relevant Course Work

(15251) Great Theoretical Ideas in Computer Science

(15210) Parallel and Seq. Data Structures and Algorithms

(15213) Computer Systems

(15122) Principles of Imperative Computation

(15150) Introduction to Functional Programming

(15451) Design and Analysis of Algorithms

(10301) Introduction to Machine Learning

(16311) Introduction to Robotics

(15330) Introduction to Computer Security