Andrew S. Woo

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Education

Georgia Institute of Technology | Atlanta, GA   *August 2021 – May 2024*
Bachelor of Science in Computer Science, Major GPA 4.00   Dean's List
Threads/Concentration: Systems Architecture & Info/Internetworks
Relevant coursework: Object Oriented Programming, Data Structures and Algorithms, Discrete Mathematics, Computer Organization, Linear Algebra, Multivariable Calculus

Work Experience

K-12 Math Tutor   *January 2021 – Present*
Tutor   Eye Level Learning
- Tutoring K-12 math to groups of up to 4 students.
- Planning and teaching individualized lessons based on each student's capabilities and understanding.
- Teaching math subjects from introductory level addition and subtraction to high school level algebra.

Computer Science Tutor   *September 2020 – Present*
Tutor   Self
- Tutoring computer science to students on request/appointment.
- 1 on 1 tutoring for students in high school and college based on individual need.
- Topics ranged from AP® Computer Science Principles to introductory college level programming.

Projects

Project Boomerang | C++/OpenGL/GLSL, CMake   *September 2020 – Present*
- Developing a video game in C++ using OpenGL and CMake to ensure platform/OS cross-compatibility.
- Leading a team of four developers in creating a game that caters to gamers of all levels of experience.
- Maintaining a Discord community to integrate player feedback in end-to-end development.
- Developing game engine from the ground-up on an as-needed basis.

Gameboy Advance/Embedded Systems Programming | C   *March 2022 – April 2022*
- Developed a proof-of-concept video game for the Gameboy Advance.
- Wrote in C to handle embedded system limitations.
- Implemented functions for graphics rendering, button input detection, collision detection, and game logic.
- Optimized to reduce or totally eliminate screen tearing while handling slow clock speeds and limited compute times.

Battleship | C++/OpenGL   *August 2019 – August 2019*
- Developed the classic Battleship board game for PC.
- Used TCP sockets to create peer-to-peer connections for multiplayer matches.
- Built game engine from the ground up using C++ and OpenGL.

Encrypter | C++, Python   *October 2017 – June 2018*
- Developed software for digitally encrypting text files and user inputs.
- Implemented an XOR one-time pad and a mathematical substitution cipher to use as encryption methods.
- Used C++ in the backend for implementing encryption functionality, and Python in the frontend for GUI.
- Front and backend communication facilitated by inter-process communication pipes.

Skills

Programming Languages: C++ (expert), C (intermediate), Java (intermediate), Python (intermediate), HTML/CSS (intermediate), JavaScript (intermediate)
Technologies: GitHub, Visual Studio, CMake, OpenGL, Git, React.js, LaTeX
Platforms: Linux (Debian-based), Windows 10
Hardware: Raspberry Pi
Spoken Languages: English (native), Korean (native), French (conversational)

Leadership and Activities

CodeHub@UGA | University of Georgia, Athens, GA   *September 2020 – August 2021*
- Was part of the executive team at CodeHub@UGA.
- Facilitated discussion about personal programming projects during small groups of five or more people.
- Developed and organized club resources.
- Set up and maintained the club's GitHub organization and resource repositories.