Allison Lu

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Education

Georgia Institute of Technology Bachelor of Science in Computer Science   **Aug. 2020 - May 2023**
    Concentration: Intelligence and Media
    GPA: 3.88
    Related coursework: AI, Machine Learning, Computer Graphics, Computer Animation, Data Structures, Algorithms

Georgia Institute of Technology Masters of Science in Computer Science   **Aug. 2023 - May 2024**
    Concentration: Computer Graphics
    GPA: 4.0

Work Experience

Digital World Imaging Group - Research Assistant   **Aug. 2022 - Dec. 2022**
- Prototyping Vive and Oculus Quest Pro mixed reality applications to help doctors diagnose blind spots of AMD patients
- Built AR visual cues for patients using SRworks, OculusXR, OpenXR, C# and Unity

Aprio - Software Engineering Intern   **Nov. 2021 - Apr. 2022**
- Developed a .NET web application with a HTML/CSS/JS frontend, and a C# backend with a SQL database to migrate client software to a cloud application
- Constructed a demo client portal that uses Tableau REST API to display hundreds of dashboards and views for clients
- Updated 200 dashboards in Tableau online for clients to view financial reports and make optimal decisions
- Drafted prototypes with Figma to better envision and discuss goals between the development team and client

Projects

Slider - Programmer
https://store.steampowered.com/app/1916890/Slider/
- Producing a 2D puzzle game releasing on Steam in Winter 2023 utilizing Unity and C#
- Devised and implemented a graph-like factory system to create and merge shapes for puzzle progression within a level
- Employed graph coloring to track the merging of shapes in a cyclic graph setting
- Coded an update system to update the graph's edge set when the setting changes as tiles are moved within the game

Pool - Full Stack Developer
http://www.simpool.tech/
- Created a lightweight carpool planning web application with a React frontend and Node.js backend
- Utilized a Firebase database for storing data about carpooling events and chat data
- Designed web page and used Material UI and Motion libraries for a better user experience on both mobile and PC

Paper Planes - Team Lead, Lead Programmer
https://allisanlu.itch.io/paper-planes
- Led a team of 40 over 5 months to produce the game Paper Planes in Unity with C#
- Coordinated and mentored a group of 21 programmers to develop using GRASP and SOLID principles
- Completed core fundamental architecture: level systems, the item, resource, and dialog systems
- Programmed wind physics to implement the core game mechanic of swipe controlled plane movement

Dango Ploof Crochet Store - Owner, Lead Programmer
https://www.dangoploof./
- Deployed React web application utilizing Firebase to sell crochets by allowing customers to view available items
- Refining cart/checkout system using Stripe REST API and Paypal API to allow for customers to buy items
- Manage social media with 1000+ followers to promote the store and increase sales
- Sold to 40+ customers situated in 4 different countries, earning profit totaling over $1,200

Leadership

Video Game Development Club - Executive Officer   **Jan. 2022 - Current**
- Cultivate an encouraging and educational game development environment for 200+ students
- Doubled VGDev's campus outreach and member count by publicizing organization activities at events and on social media
- Leading and supporting 16 team leads to develop 12 quality video games over 2 semesters

Skills

Programming Languages: Java, C#, C, C++, Python, HTML, CSS, JS
Framework/Libraries: Unity, Unix, .NET, Node.js, React, Firebase, Processing, OpenGL, NumPy, Material UI, Motion, scikit
Design: DaVinci Resolve, Figma, Canva
Misc: English, Mandarin, Cantonese, 3D Math, Agile Development