Albert Lu

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EDUCATION

Northwestern University (**Cumulative GPA: 3.97**) 2021-2024
Bachelor of Science in Computer Science, Minor in Data Science
Relevant Courses: Deep Learning, Operating Systems, Game Design and Development, Statistics, Machine Learning, Engineering Analysis, Computer Systems, Design Thinking and Communication

Washington University in St. Louis 2020-2021
Relevant Courses: Object Oriented Programming Software Laboratory, Data Structures and Algorithms, Multivariable Calculus

EXPERIENCE

Microsoft June 2022 - September 2022
Software Engineer Intern
- Designed and developed a Standalone Single Stroke Shape Recognizer capable of recognizing over fourteen shapes with high accuracy and producing beautified hot points for rendering
- Integrated Shape Recognizer across multiple platforms including Win32 applications, browsers, and into Microsoft general's microservice provider for consumption in any Microsoft product

Lunar Game Studios 2021 - Present
Founder/Product Manager
- Managed discussion and development of an upcoming game by creating timelines, goals, and curated frameworks for the team of six developers
- Engineered core mechanics, level designs, and MDA aspects of the game using C# scripts within the Unity Development Platform

United States Liability Insurance Group May 2021 - August 2021
Software Developer Intern
- Utilized C# to create a dynamic and user friendly front-end GUI (WinForm) that accessed and updated a SQL database of Employees that allows for data manipulation and analysis
- Developed new features and bug fixed the data and UI tier of the live application using Angular and C# within a dedicated team environment

TECHNICAL PROJECTS

HMU (Python, Angular, Flask) 2021 - Present
Designed and developed an expansive web app for college age students looking for gatherings. Gatherings are suggested by an algorithm that calculates mutual friends and other factors so that individuals can request to join while the host can use the platform to manage attendees. Utilizes Python for the middle tier data processing before using Flask to manage requests for the frontend built in Angular.

Various Machine Learning Models (Python) 2020 - 2021
Developed a Recurrent Neural Network without any assisting frameworks such as Pytorch or Tensorflow to recognize handwriting up to 90% accuracy. Implemented general algorithms such as K Nearest Neighbors, Decision Trees, Perceptron, and Polynomial Regression to fit and predict labels of any inputs.

Recently Completed Programming Projects: 2020 - Present
- **Min-Max to the Max (Python, Pytorch)**: Utilized Riot Games' API to create a program that utilizes custom made heuristics to inform the player what best purchases by incorporating multiple factors into decision.
- **Board Games (C++)**. Developed several board games within a team environment using polymorphism and inheritance to simplify the process. Utilized Git and version controls to enable working in a group environment.
- **Excel Scraper(Python)**. Produced commercially, this program is coded for flexibility to encourage reusability and to ensure it works on multiple templates.
- **Self Solving Puzzle Program(Java)**. Using Gradient Descent and Decision Trees, this program solves random puzzles by moving pieces to limit the prediction error.

SKILLS/INTERESTS

Skills: Python, C++, Java, C#, SQL, HTML, Javascript, CSS, Angular, Git, Documentation, Database Management, Web Development
Interests: Reading Fiction and Nonfiction *(Count of Monte Cristo, Intelligent Investor, Blue Ocean Strategy)*, Playing and Watching Sports *(Tennis, Swimming, Basketball)*, Playing Video Games (*League of Legends, Super Smash Bros.)*, Learning New Languages *(Python, C#, Javascript)*, Enjoying Outdoor Activities *(Hiking, Running, Scenic-Viewing)*