SeungU Lyu

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EDUCATION

Olin College of Engineering

Bachelor of Science in Engineering with Computing

- Cumulative GPA: 3.97 / 4.00
- Recipient of 4-year, 50% Olin Merit Scholarship .
- Relevant Coursework: Machine Learning, Software System, Software Design, Data Structures and Algorithms, User-Oriented Collaborative Design

EXPERIENCE

Microsoft

Software Engineer Intern

- Managed the engineering planning and the creation of the .NET MAUI overview page for Visual Studio, serving onboarding guidelines to thousands of current users and any number of future users.
- Fixed a total of 8 bugs related to UI and UX in 3 repositories for Visual Studio, providing a unified design and adding smoothness to the user experience.
- Contributed to engineering system by testing experimental library and creating documentation for future applications.

1006 Games

Lead Game Designer

- Led a team of three game developers to publish multiplatform indie games, available on Google Play Store, itch.io, and Crazygames.com (9.1/10.0 out of 57 ratings).
- Fostered a culture of agile iterations by regularly sharing UX prototype that drove the team's North Star vision.
- Managed scope and feature requirements for each development milestone.

OCCaM (Olin College Crowdsourcing and Machine Learning) Lab

Undergraduate Student Researcher

- Participated in Invisible Map Project, an accessible iOS app for people who are blind to navigate inside buildings guided by augmented reality without dependency on external devices.
- Developed "Save Location" feature that allows users to pre-register important locations inside the buildings as reference pointers during future navigations.

PROJECTS

SPLUX & Other Game Projects

- Developed UX and frontend for SPLUX, KMLA72, and ELIC (Unity C#). •
- Defined key project requirements such as: class structures, settings, assets, budget, rules, flow, and interface; accelerated project execution by creating scheduled guidelines and effectively collaborating with the teammates.
- Enhanced FPS performance by 50% (from 180 to 270) by custom shader creation, memory resource management and refactoring class structures.

Invisible Map Project

- Utilized Apple ARKit and April Tag to calculate the user's relative position from the tag (save location feature to pre-register navigation reference pointers)
- Created UI/UX mocks that meets extensive accessibility requirements.

Robot Chess Competition

- Developed a robot chess player by integrating camera vision system with a UR5 robot arm via serial communication (Python, ROS, OpenCV).
- Designed algorithm that outputs the next move for the robot from the image input of the chess board

LEADERSHIP AND ACTIVITIES

32nd Air Defense & Control Group, Air Defense Identification Team Sergeant, Squad Leader

Supported identification of unidentified aircraft in Korea Air Defense Identification Zone with the cooperation of China/Japan Air Force.

SKILLS

- Programming Languages: C#, C, Python, Swift, Java, XAML
- Tools & Technologies: Unity, Visual Studio, SOLIDWORKS, OpenCV

Busan, South Korea

Needham, MA

Redmond, WA

May 2022 – Aug 2022

Aug 2018 – May 2023

Feb 2020 – Aug 2021

Needham. MA

Jun 2020 – Aug 2020

Feb 2020 – Aug 2021

Sep 2018 – Dec 2018

Jun 2020 – Aug 2020

Daegu, South Korea July 2016 – July 2018