GENIE HOU

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Education

New York University Abu Dhabi   United Arab Emirates
B.S. Computer Science and Interactive Media GPA:3.6   *Aug. 2020 – May 2024*

Skills

Programming Languages: Python, C++, Java, HTML/CSS, Hydra, Tidalcycles, JavaScript, ReactJS
Developer Tools: Arduino, Express, Unity, Blender, VScode, Apache Hadoop, Node.js, MongoDB
Designing tool: Figma, Adobe Suite, Canva, Tableau
Human Languages: Mandarin, English, German

Experience

Tech and Outreach Intern   Jan 2022 – Jan 2023
IAMPOWER   *Remote*
- created the outreach database using Google Sheet and **Google App Script** maintaining over 10,000 data entries
- constructed 5 versions of holding sites demonstrating IAMPOWER projects and work
- structured prototypes of the platform with a team of professionals

Research Assistant   June 2022 – Dec 2022
NYU Tandon biLab   *New York City, USA*
- worked with the building informatics and visualization lab to build VR environments on modular construction factory consisting more than 16,000 objects using **Unity, Blender, and C++**
- implemented **edge detection** and C++ scripting to generate 1000 pictures per object preparing for the machine learning phase of the project

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Leadership Experience

President   Jan 2022 – June 2022
hackAD   *Abu Dhabi, UAE*
- hosted networking events to foster the tech community across campus
- initiated tech programs such as Mock Interview Series, hackathons, and Faculty Lab interviews engaging over a hundred students to help them advance in the STEM world
- spearheaded the event planning with Hub71 to connect over 50 students with the local startup ecosystem

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Projects

ArtistsGo   June 2022 – Dec 2022
Agile Software Development   *NYU CAS*
- conceptualized the idea of an online community for NYU students to share their talent
- collaborated with a diverse team aligning with the **agile development methodology** to create a fully functioning application using the **MongoDB, Express, ReactJS ,and Node.js** stack

NYC Traffic Pattern Pre, Through, and Post Pandemic   Oct 2022 - Dec 2022
Processing Big Data for Analytics Applications   *NYU CAS*
- processed data from MTA regarding subway ridership from all 472 stations in New York City throughout 2019-2021 combined to 3800+ data entries with **Apache Hadoop and Hive**
- generated analysis on the pandemic's impact on NYC traffic from MTA datasets and combined dataset of tunnel usage and subway ridership with multiple MapReduce processes using **Java**
- analyzed and visualized the analysis using **Tableau** for presentation and paper write-up

QvsPy   April 2022
NYUAD Hackathon for Social Good in the Arab World   *NYU Abu Dhabi*
- awarded the 2nd place of the annual NYUAD hackathon focusing on Quantum Computing with participants from all around the globe
- developed a quantum sensor simulator through quantum computing technology for the improvement of virus detection accuracy from 75% in PCR to 99%
- launched as a **Python** package for the public to access with a team of diverse backgrounds and experiences

VR:The Happy Place   Nov-Dec 2022
Immersive Experience   *NYU IMA*
- conceptualized the idea of building a virtual space where you can immerse in other people's happy place
- interviewed people about their happy happy and recreated these spaces by **unity and c++ scripting**