

Xiaonan Shi, Ph.D.

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Education

Georgia Institute of Technology, Atlanta, GA 2022/01 - 2024/05

Master of Science in Computer Science, GPA: 3.9/4.0

Core Courses: Graduate OS, Software Dev, Software Analysis, Robotics: AI Tech, Grad Algo, Network, Info Security

New Jersey Institute of Technology, Newark, NJ 2017/09 - 2022/05

Ph.D. in Environmental Engineering, GPA: 3.9/4.0

Projects

Job Offer Comparison App Development 2024/01 - 2024/03

- Developed an Android app to track and compare job offers, helping users to select the preferred job offer.
- Enabled users to input, view, and edit job offer attributes, such as salary, bonus, benefits, stock shares, and locations.
- Constructed a built-in calculator to provide users with an estimated take-home pay, factoring in base salary, bonuses, benefits, and taxes, offering a detailed understanding of potential earnings.
- Allowed users to organize job offers using customizable tags, such as company, location, and industry.
- Implemented comparison features for users to visualize and evaluate job offers side-by-side, personalize weights for each job attribute, and calculate a final score to facilitate informed decision-making.

NFT Marketplace Development 2023/09 - 2023/12

- Built a non-fungible tokens (NFTs) marketplace using React, for users to mint, view, list, sell, and purchase NFTs.
- Designed a collection page to display all NFTs owned by the current user, allowing users to mint and manage NFTs; implemented functionality to upload images, generate associated identifiers, and save them in blockchain storage.
- Created a discover page for browsing and purchasing NFTs, displaying NFTs with owner information and price tags.
- Developed transaction processes for NFTs purchases, including financial token transfers from the buyer to the seller, and automated NFTs ownership validation and transfer.
- Achieved real-time UI updates for actions such as minting, listing, and purchasing NFTs, reflecting changes in ownership, listing status, and token balances.

SLAM and Robotic Navigation for Treasure Extraction 2023/05 - 2023/08

- Designed an autonomous navigation and control system using SLAM (Simultaneous Localization and Mapping) algorithms for a drone to retrieve treasures in an unknown jungle environment, while avoiding tree collisions.
- Calculated the position of trees and treasures relative to the drone using sensor measurements at each timestep, achieving simultaneous updates as the drone navigated the environment.
- Adjusted location calculations using Gaussian noise models to predict the true state of the environment and the drone's position, accounting for errors in sensor readings and movement.
- Implemented A* algorithm to find the optimal path from the drone to the treasure while avoiding obstacles.
- Computed moving distance and steering angle at each step, enabling treasure pickup when within reachable range.

Experience

DataAnnotation, Remote 2024/06 - Present

Freelance coder

- Evaluated and revised LLM-generated code based on user requirements, providing feedback to fine-tune models.
- Developed testing scripts to verify code performance and identify coding issues, reporting results to improve accuracy.
- Modified generated code to ensure required functionality and provided revisions for further model training

Skills

Programming Languages: Python, Java, JavaScript, C, C++, HTML/CSS

Tools: React, MySQL, SQLite, NumPy, pandas, Git

Certificates: AWS Certified Cloud Practitioner, J.P. Morgan - Software Engineering Job Simulation