STEPHEN MA

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EDUCATION

University of Minnesota, Twin Cities   **Minneapolis, MN**
College of Science and Engineering   *September 2021 - Present*
Bachelor of Science in Computer Science   *GPA: 3.9, Dean's List for 4 semesters*

PROJECTS

Student Management System | **GITHUB: https://github.com/stephen3m/student-management-system**
Personal Project   *July 2023 - August 2023*
- Designed and developed a student management system to handle music student records, lesson scheduling, and payment tracking
- Implemented a dynamic frontend using React JS and CSS, utilizing modular components for improved organization and reusability
- Developed a robust backend in Kotlin using the Micronaut framework to handle API requests and manage data interactions
- Created and integrated a PostgreSQL database with structured tables to securely store student, lesson, and payment records. Used DBeaver to interact with database and run SQL queries

Drone Simulation | **GITHUB: https://github.com/stephen3m/Drone-Simulation-System**
Program Design and Development   *January 2023 - May 2023*
- Implemented different design patterns and software development processes to create an interactive simulation that allows the user to schedule drone trips to pick and drop off robots
- Used C++ to integrate shortest path algorithms, data collection tracking, and drone battery functionalities into the system
- Acted as Project Lead by defining clear goals, scheduling deadlines, and consistently communicating with team members

Gopher Bin | **GITHUB: https://github.com/SASE-Labs-2022/Gopher-Bin**
Society of Asian Scientists and Engineers   *September 2021 - May 2022*
- Assembled a machine-learned waste categorizer that sorts objects based on biodegradability
- Collaborated within a subteam to build a biodegradability object database, using it to train a convolutional neural network in TensorFlow for object analysis and classification
- Integrated a Python script with a Raspberry Pi camera, facilitating real-time execution of the trained object detection model for accurate classification

Personal Portfolio Website | **GITHUB: https://github.com/stephen3m/Personal-Website**
Personal Project   *May 2023 - August 2023*
- Designed a website using HTML, CSS, and JavaScript to showcase projects and technical skills
- Deployed to the Internet by employing Azure services

SKILLS AND COURSEWORK

Skills

Programming Languages: Python, Java, C, C++, JavaScript, Kotlin, SQL, OCaml, x86 Assembly
Frameworks: Micronaut, Bootstrap, TensorFlow, TensorFlow Lite, Angular, PyTorch
Tools: Git, IntelliJ, VS Code, Eclipse, Insomnia, DBeaver, PostgreSQL, Docker, Doxygen, Azure, NoSQLBooster, MongoDB, Colaboratory, GDB, GCC, Linux, Raspberry Pi

Coursework

Machine Learning Fundamentals, Intro to Operating Systems, Intro: Artificial Intelligence, Program Design and Development, Algorithms & Data Structures, Advanced Programming Principles, Machine Architecture and Organization, Discrete Mathematics, Statistics