**YouYou Yu**

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**EDUCATION**

**University of Illinois at Urbana-Champaign** May 2024

**Bachelor of Science in Computer Engineering (James Scholar)** GPA: 3.8/4.0

***Programming skills***

*C, C++, Python, X86, CUDA, Linux Kernel, SQL, Git, Arduino, System Verilog, MongoDB, Neo4j*

***Related Courses***

*Data Structures and Algorithms | Computer Systems Engineering | Computer Systems and Programming*

*Discrete Mathematics | Database Systems | Applied Parallel Programming | Probability With Engineering Applications*

**PROFESSIONAL EXPERIENCE**

LX Precision Co.,Ltd, Shanghai IT Intern | May 2021 - July 2021

* Developed Business Acquisition Requests by extracting information from the database using SQL to improve the productivity of other teams using Epicor ERP
* Maintained multiple tables of a relational database and analyzed data on-demand on essential aspects such as quality assurance, employee shift statistics, and material part tracking
* Gained a comprehensive insight on the supply chain and business logic behind the company
* Organized bi-weekly meetings to collect demands from other departments

**PROJECT HIGHLIGHTS**

Advanced Control Research Laboratory Quadrotor Group, Champaign Software Track Lead | Summer 2022 to present

* Led the software development of a Nvidia Jetson TX2 based quadrotor and prepared the team with supports
* Implemented a finite state machine in the firmware of Ardupilot for customized controls
* Arranged weekly track meetings and bi-weekly group meetings to update progress and future plans
* Gained thorough knowledge of the drone architecture, Mavproxy message protocols, and SITL testing tools

Applied Parallel Programming, Champaign Fall 2022

* Coded a forward convolution kernel for a character recognition neural network using CUDA
* Optimized the kernel by using constant memory, streaming, FP16 operations, and tiled matrix multiplications
* Profiled and improved kernel performance using Nsight System and Nsight Compute

Database Systems, Champaign Fall 2022

* Designed and wrote a web application called FridgeDB using Javascript and SQL
* Deployed the database on Google Cloud Platform (GCP) and connected it to the frontend using NodeJS
* Created and maintained the database schemas, stored procedures, and triggers in SQL

Computer Systems Engineering, Champaign Spring 2022

* Developed a Linux-based kernel with scheduling functionality from scratch with a team of 4 students
* Gained comprehensive knowledge on file systems, interrupt based I/O, memory and multi-task management
* Wrote code for display driver based on Mode X VGA protocol and designed multiple drivers for computer system

**OTHER SKILLS**

Languages and Productivity: Chinese (Native), Epicor ERP, PowerBI