Erkai Yu

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**EDUCATION**

University of Illinois at Urbana-Champaign, The Grainger College of Engineering Expected June 2024

* Bachelor of Science in Computer Engineering
* Cumulative GPA: 3.93/4.0
* Relevant coursework: Operating Systems Engineering, Anomaly Detection, Database Systems, Embedded System Security, Algorithms and Data Structures.

Zhejiang University, ZJUI Institute Expected June 2024

* Bachelor of Engineering in Electric and Computer Engineering
* Cumulative GPA: 3.96/4.0

**SKILLS**

Programming Languages: C/C++, Python, JavaScript, SQL, MATLAB

Tools: Linux OS, MongoDB, MySQL, PyTorch, Ghidra, Wireshark

**SELECTED HONORS**

Third Class Scholarship of ZJUI 2020-2021

Dean’s List of UIUC, 2020-2021

**RESEARCH EXPERIENCE**

Embedded system programming for laboratory machines. July – Aug 2021

Unsupervised anomaly detection in computer vision. Jan – June 2022

Embedded system library matching. May – August 2023

**PROJECTS**

Automatic vaccine distribution database, a command line tool for coursework. Feb – June 2022

* A system capable of receiving more than 10,000 registration a day.
* Implement efficient data structures to construct a database with C++.
* Command line tool, with a built-in shell for users to interact.

Unsupervised anomaly detection in computer vision. Jan – June 2022

* A framework based on Contrastive Learning for unsupervised anomaly detection.
* Implemented with PyTorch.

A 32-bit x86 operating system built from scratch. Oct – Dec 2022

* A basic operating system that supports multiple system calls with a terminal
* Written in C
* Multi-threading support

**WORKING EXPERIENCE**

The Grainger College of Engineering Jan – May 2023

Course Assistant for ECE 391: Computer System Engineering