# 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, 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

## 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

## 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