# Jamlee Jim

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## EDUCATION

**Zhejiang University** (ZJU) | ZJU-UIUC Institute — *Hangzhou, China*
- B.ENG in Electronic and Computer Engineering | GPA: 3.83/4.0 — *09/2020-06/2024*

**University of Illinois at Urbana Champaign** (UIUC) — *Champaign, IL*
- B.ENG in Computer Engineering | GPA: 3.87/4.0 — *08/2022-08/2023*
- MSCS in Computer Science — *08/2024-Present*

## PUBLICATION

- **J.L. Jin**, Y.S. Li (co-first author), K. Levchenko. 'CAPSID: A Private Session ID System for Small UAVs'. ACMCSS 2024 2nd Round Conference. (accepted)

## RESEARCH EXPERIENCE

The Laboratory of Computer Graphics | Advisor: Dr. Gaoang Wang — *ZJU*

**Optimization of Rotating Bounding Box Detection on DOTA Set** — *09/2023-Present*
- Proposed a YOLOv5-based algorithm to detect the object in aerial images
- Combined the rotated bounding box with the convolutional feature maps to simultaneously calculate the location and orientation of the target
- Applied five-parameter method to record angle information of rotated targets for labeling purpose

The Laboratory of CSL | Advisor: Dr. Kirill Levchenko & Dr. Radhika Mittal — *UIUC*

**Security Broadcasting Protocol Design for Remote ID of Drones** — *05/2023-05/2024*
- Designed a novel anonymous and distributed broadcast authentication protocol scheme involving 4 parties (central authority, trusted third party, drone, receiver) for secure remote ID identification.
- Integrated privacy-enhancing measures into the protocol and designed mechanisms for authenticating and authorizing the broadcasting entities
- Optimized the protocol design to achieve efficient broadcasting
- Conducted thorough testing of the protocol design through simulations and experiments

**Examining Network Support for Autonomous Farms** — *05/2023-08/2023*
- Measured the performance of WiFi 6 at both 2.4GHz and 5GHz bands under different settings
- Designed a two-tiered (2.4GHz under-canopy and 5GHz above-canopy) network architecture for autonomous farms based on the networking requirements of farm workloads
- Created a centralized traffic management engine equipped with streamlined algorithms to enhance network performance
- Built a trace-driven simulator to evaluate the proposed network

## SELECTED PROJECT

- Unix-like Operating System Development based on Designed File System — *05/2022-01/2023*
- GPU Acceleration on LeNet-5 Architecture Network — *05/2022-01/2023*
- Storage System Design base on B-plus Tree Structure — *09/2021-01/2022*

## TEACHING ASSISTANT EXPERIENCE

**Teaching Assistant** | Department of Electrical and Computer Engineering — *UIUC*
- ECE 408: Applied Parallel Programming — *08/2023-01/2024*
- CS 225: Data Structure — *02/2024-06/2024*

## HONOR & AWARD

- Member of Tau Beta Pi (Top 10% of Junior Class) — *2023*
- Dean's List (Top 20% of Junior Class) — *2022*
- First Prize of Zhejiang Division of National College Student Math Contest — *2021*
- Honorable Mention of Mathematical Contest in Modeling (Twice) — *2020/2021*

## SKILL

- **Programming**: C, C++, Python, MATLAB, JavaScript, HTML, CSS, Verilog
- **Application/Framework**: Docker, ProVerif, PyTorch, CUDA, Drupal
- **Technique**: Front-end Development, Database Management, Deep Learning, Data Network