# ZHUOYANG SUN

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## EDUCATION

**Purdue University**　　　　　　　　　　　　　　　　　　　　　　　　　　　Aug 2025 (Expected)
Master of Science in Computer Engineering & Computer Graphics (GPA: 3.95 / 4.00)　　　West Lafayette, IN

**Tongji University**　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　Jul 2023
Bachelor of Science in Computer Science (GPA: 89.00 / 95.00)　　　　　　　　　　Shanghai, China

## PROFESSIONAL EXPERIENCE

**Zoom**　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　Jun 2024 – Aug 2024
QA Engineer Intern　　　　　　　　　　　　　　　　　　　　　　　　　　Hangzhou, China

- Utilized Python and Selenium to implement automated test pipeline for the Zoom Docs, significantly reducing the burden of repetitive tasks such as creating, deleting, or modifying large numbers of files and documents.
- Wrote over 50 TA scripts in Jenkins, covering 30% of previous test scenarios.
- Worked closely with Product Manager and backend and frontend engineers located in different areas, including Hangzhou, Wuhan, San Jose, etc, to ensure clear communication of requirements to both development and QA.
- Collaborated in a team of 30 to conduct extensive API testing, and contributing over 150 bugs to Jira system and detected at least 1-3 bugs for each test requirement.

**Nio**　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　Feb 2023 – May 2023
Software Engineer Intern　　　　　　　　　　　　　　　　　　　　　　　Shanghai, China

- Diagnosed and resolved logical issues in the log system, resulting in a 10% reduction in log errors.
- Revamped the error tracking system by transitioning from a stage-to-stage to a step-by-step approach, significantly improving the debugging efficiency of engineers.
- Augmented the platform's search system via Elasticsearch APIs, enabling complex queries and widening the road-test data search capabilities to include both city and highway data, making it more convenient and effective for test engineers to construct test scenarios.
- Implemented a robust message existence checking system with Python and Bash scripts in team's CI/CD pipeline, which deployed in GitLab, for the monitoring the data accuracy of new package before publishing, during both the initial publishing and test runtime stages, supporting 1,000 batch-run tests.

**Ali Cloud**　　　　　　　　　　　　　　　　　　　　　　　　　　　　Jun 2022 – Sep 2022
Software Development Engineer Intern　　　　　　　　　　　　　　　　　　Hangzhou, China

- Implemented a powerful plugin in Greenplum, a massively parallel processing version of PostgreSQL, to monitor the storage usage of the database and send alerts to administrators. This proactive monitoring system helped prevent potential storage overflows and ensured optimal database performance.
- Collaborated with a team of 10 engineers to design and implement new features for the cloud database system, enhancing column processing capabilities and user experience.
- Conducted efficiency analysis using flame graphs to identify performance bottlenecks in Greenplum, revealing issues including insufficient memory allocation, resource-intensive functions

## RESEARCH EXPERIENCE

**Purdue University** PIVIL

- Served as a research assistant on a project involving forestry LiDAR scanning. Developed a C++-based point cloud LiDAR simulation in Unreal Engine 5, with enhanced simulation realism.
- Contributed to the creation of the "LiDAR-Forest Dataset: LiDAR Point Cloud Simulation Dataset for Forestry Application," which was published in IEEE VR 2024. This dataset, which includes 50 types of forests and over 100 kinds of trees, provides valuable data for the research community and showcases the project's innovative approach.

## TECHNICAL SKILLS

**Languages**: Java, Python, JavaScript, C, C++, C#, R, PHP, Golang
**Technologies**: AWS EC2, AWS S3 Bucket, K8s, Docker, Jenkins, Jira, Git, Gitlab CI, Selenium, Pytest, React, Spring Boot, Angular, Grafana, Linux, PostgreSQL, MongoDB, MySQL, Microsoft SQL Server, Vim, Elasticsearch, Microsoft Visual Studio, OpenGL, Cuda, Confluence, Vue, Flask, .Net, Node.js, PyTorch, LangChain, Unreal5, GNU Debugger, Tableau