**Allen Zhang**

hzhang958@gatech.edu | (404) 490-5630 | linkedin.com/in/allen628228336/

SUMMARY

**1-YOE** Backend SDE with expertise in **cloud technologies** and **distributed systems**, seeking 2025 Summer internship

EDUCATION

**Georgia Institute of Technology** Atlanta, GA

*Master of Science in Computer Science*Aug 2024 -- May 2026

**University of Illinois Urbana Champaign** Urbana, IL

*Bachelor of Science in Computer Science; 3.94/4.0 GPA*Aug 2019 -- Dec 2022

PROFESSIONAL EXPERIENCE

**VAST**

*Software Engineer*Aug 2023 -- Aug 2024

* Developed a **microservice** tomanage user tasks using Python and **Redis** within a **Kubernetes cluster**, reducing queuing time by 12%
* Deployed AI models as microservices using Flask for HTTP communication scalable and high traffic service
* Created a monitoring system to track traffic and dynamically adjust the number of microservices, resulting in a 15% increase in GPU allocation in kubernetes cluster
* Incorporated **CI/CD** pipelines to automate microservice deployment with **Github Actions** and **Yaml** for reliable delivery, streamlining deploy time by 23%
* Constructed an internal web page using **React.js** and **Javascript** for AI model submission and configuration, streamlined the deployment process, increasing efficiency by 30%
* Implemented 5 **RESTful** APIs for post-processing 3D models, compliant with **OpenAPI** standards

**DREAMIN**

*Software Engineer & Co-founder*Dec 2022 -- July 2023

* Led a team of 3 to develop a backend server with **Django** and Docker, implemented 30+ **RESTful** APIs and deployed on **AWS** ECS for scalable server management
* Fine-tuned and deployed multiple AI models on **AWS** EC2, including Llama 2 and Stable Diffusion, provided RESTful APIs for game character and level generation
* Developed a dynamic web page using **JavaScript** and **React.js** with caching and lazy loading optimizations, facilitating the access and sharing of UGC games 60,000+ times
* Designed a cloud-based database leveraging **AWS** RDS, DocumentDB, and S3 for storing user and game data
* Integrated over 20 business admin logging endpoints which collected over 1 million data entries using **MySQL**, providing insights for product improvement

**HERO GAMES**

*Software Engineer Intern*May 2021 -- Aug 2021

* Built a tool by modifying the rendering pipeline using **C++**, supporting the game scene development workflow
* Modified UE4 shader pipeline with C++/HLSL to detect irregular colors in scene, enhancing development workflow
* Created a tool to auto-generate skin textures using QT5 and C++, boosting art asset production efficiency
* Optimized **PostgreSQL** database schema by implementing indexing, query restructuring, and table partition
* Collaborated with the art team to write technical documentation, streamlined the development process by 10%

TECHNICAL SKILLS

* **Programming Languages**: Python, JavaScript, C/C++, Java, SQL, Bash, Shell, HTML/CSS
* **Technologies**: Flask, Django, React.js, Spring, MySQL, PostgreSQL, Redis, MongoDB, Kafka, Pytest
* **Development Tools**: Kubernetes, Docker, Git, Linux, AWS, Azure, Github Actions, JIRA
* **Architecture**: Agile development, Microservices/Serverless Architecture, RESTful, CI/CD