Yulong Liang

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Summary

Strong Computer Science background in software engineering and development cultivated by Georgia Tech. Proficient in trending coding and programming in multiple languages and software tools. Have proven experience and understanding in research, problem solving, design documentation, and data optimization.

Technical Skills

Programming Language: Python, Java, JavaScript, Julia, MATLAB, C, C++, CUDA, Golang, HTML5, CSS, MySQL
Framework & Tools: React, Angular, D3, Node.js, Tableau, GitHub, OpenAPI, Linux, AWS, Docker, Kafka

Education

Georgia Institute of Technology **Aug 2022 - May 2024**
Master of Science in Computational Science and Engineering *GPA: 3.85/4*

Georgia Institute of Technology **Aug 2018 - May 2022**
Bachelor of Science in Applied Physics, Minor in Computer Science, Highest Honor Distinction *GPA: 3.83/4*

Product Experience

TurboBe - GenAI Powered Immigration Application Agent | Co-Founder | *Web* **Aug 2024 – Present**

- Architected and implemented a GenAI-based long-essay generation pipeline leveraging RAG and agent frameworks, incorporating content moderation and chain of thoughts
- Designed and deployed a scalable back-end system with **Django**, **REST**, and **Docker**. Reduced development time by **40%** and successfully launched the application on Azure Cloud with a robust DevOps pipeline
- Built a front-end system using **React** with **10+** responsive web pages, integrating and testing APIs for seamless functionality and improved user experience

Work Experience

Tencent **Jun 2021 – Aug 2021**
Back-end Software Engineer *Beijing, China*

- Built a back-end server for a cross-platform search system catering to up to **30,000** employees using **Golang**
- Developed and maintained a secure and efficient internal API with **Node.js** and **OpenAPI**, facilitating seamless data communication within the team service system over a **3**-month period
- Designed and implemented a reliable RPC service for the internet system, resulting in a **23%** enhancement in real-time data update efficiency using **tRPC-GO**
- Conducted data cleaning and standardization for **20,000+** employees, contributing to the enhancement of the Tencent Information Security System's data quality and integrity using **MySQL**

Citibank **May 2024 – Aug 2024**
Full Stack Software Engineer *Atlanta, GA*

- Developed a robust data management platform for a bank system using **Java Spring Boot** framework, achieving a **32%** reduction in average response time.
- Customized an informative front-end web page using **AngularJS**, implementing numerous UI enhancements that resulted in a **20%** increase in daily active users
- Built an advanced dataset system using **MySQL** and implemented over **50** unit tests, increasing test coverage by **40%** and reducing bug rates by **25%**

Georgia Institute of Technology, College of Computing **Aug 2022 – Jan 2024**
Graduate Research Assistant *Atlanta, GA*

- Utilize **Pytorch** to actively involve with current scientific machine learning and uncertainty quantification projects (plasma fusion and DESC stellarator optimization) led by Professor Peng Chen
- Apply **DESC library** to conduct force error balance analysis within the dynamic stellarator structure, generating perturbation results for pressure and rotational transform profiles with a sample size of up to **8000**
- Implemented a projected neural network using **Numpy** to train an input-output map in a 3D stellarator environment, Achieved an impressive reduction in force error for plasma fusion flow by **18%**, demonstrating problem-solving and machine-learning skills

Institute of Physics, Chinese Academy of Science **Jun 2019 – Sep 2019**
Research Assistant *Beijing, China*

- Managed and trained **5** databases derived from electronic coherence in a 2D electronic spectroscopy experiment and produced graphical results with visualized data utilizing **MATLAB** and **MySQL**
- Formulated a comprehensive and professional experiment proposal, integrating the acquired numerical results to substantiate the research objectives with **Latex** and **Tableau**
- Designed and implemented an electronic signal detection tool utilizing **Java** and **LTspice**, leading to a **15%** improvement in experiment response time and a **25%** reduction in detection error