Siqing Li

Curriculum Vitae

Department of Statistics and Data Science
Southern University of Science and Technology
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Background

Southern University of Science and Technology

Sept. 2022 – Present **Undergraduate, Data Science & Big Data Technology**, *Southern University of Science and Technology (SUSTech)*, Shenzhen, China.
Overall GPA: **3.78/4.0** (**3.85** in Last Semester)
Weighted Average Score: 90/100

Main Courses.

- **A Grade:** Probability Theory, Mathematical Statistics, Data Structure and Algorithm Analysis, Advanced Natural Language Processing, Distributed Storage and Parallel Computing, Artificial Intelligence, Intro. of Big Data, Computer Programming Design
- Other Advanced Courses: Mathematical Analysis Essentials, Discrete Mathematics and Applications, Operations Research and Optimization, Statistical Linear Models

Leadership.

- President of SUSTech Red Cross (Student), Secretary of SUSTech Emergency Rescue Association
- Student Representative of Shuren College
- Section Leader of SUSTech Choir

Guangzhou No. 2 Middle and High School

Sept. 2016 – Jun. 2022 **Focused on Science in High School**.

- Outstanding Student Award for Three Consecutive Years
- Leader of School String Orchestra

Honors

Scholarships

2024 Outstanding Student Leader Model Mention (Top 2%)
2023/2024 The Second Prize Scholarship of University (Top 8%, twice)

Competitions

2024 China Mathematical Modeling Contest - First Prize of Province (Top 8%, national prize mention)
2023 China Mathematical Modeling Contest - Second Prize of Province (Top 16%)
2024 Mathematical Contest in Modeling (International) - Honorable Mention (Top 20%)
2023 China International Collegiate Innovation and Entrepreneurship Competition (University), First Prize (First Place)

Student Honors

2024 Student Cadre of Excellence of SUSTech
2024 Outstanding Student of SUSTech
2024 Outstanding Volunteer of SUSTech
2023 Excellent Student of SUSTech
2023/2024 Model for Emergency Rescue of SUSTech

Research and Projects

May. 2024 – Jan. 2025 **GaussMedAct: Gaussian-based Representation Learning for Fine-grained Medical Action Evaluation (Submitted to ICCV'25)**, *with Prof. Alper Yilmaz, OSU*.

- Developed a large-scale CPR dataset with 6,000 videos, featuring multi-view and multi-label annotations for fine-grained clinical action analysis. Analyzed and visualized label relationships providing insights into the interdependencies of clinical action categories.
- Proposed a novel Gaussian field-based method to replace ST-GCN for modeling fine-grained temporal and spatial relationships in medical actions. Achieved >90% acc. Conducted experiments integrating RGB and joint data modalities, implemented multiple down-stream tasks.

Oct. 2024 – Dec. 2024 **Fine-tuning Gemma2 on GPT-4 QA Dataset**, *with Chair Prof. Bingyi Jing*.

- Fine-tuned the Gemma2 model for Chinese QA tasks using the Evol-Instruct-Chinese-GPT4 dataset, leveraging LoRA for parameter-efficient adaptation and RAG for improving contextual understanding.
- Delivered a comprehensive analysis of the model's performance, highlighting key areas of improvement and proposing future optimizations for better generalization in unseen QA tasks.

Feb. 2024 – Dec. 2024 **Scalable System for Major Capital Flow Analytics in Financial Networks**, *with Dr. Peng Yang*, Report(CN).

- Engineered a distributed MapReduce-based framework to process and analyze over 4 million financial transactions, providing insights into capital inflows, outflows, and net flows with exceptional efficiency.
- Implemented advanced algorithms to identify key active orders, achieving a 40% reduction in computation latency. Designed visualizations and real-time monitoring dynamics.

Jan. 2024 **Momentum Modeling and Outcome Prediction in Tennis Matches**, *MCM*, Report(EN).

- Assess player performance and momentum shifts with combinatorial optimization and ML.

Aug. 2024 **Optimization of DQN Variants in Reinforcement Learning**, *MCM*, Report(EN).

- Conducted a systematically investigation of key hyperparameters.

Aug. 2024 **Profit Maximization Decision-Making Models Based on Sampling**, *MCM*, Report(CN).

- Implemented Monte Carlo sims and dynamic transfer function models and Bayesian inference.

Dec. 2023 **Content-Aware Image Resizing with Seam Carving**, Report(EN).

- Analyzed energy function, dynamic programming, and expansion functionality.

Voluntary Experience

2022 – Present **Total Volunteer Service Hours: 356.5 h**.

- Participated in various activities, including sports events, academic conferences and competitions, and caring for vulnerable groups.

2024 – Present **Student President of SUSTech Red Cross**.

- Joined the SUSTech Red Cross at enrollment and gradually grew into a team leader.
- Organized a variety of volunteer events, emergency first aid carnival activities, and fundraising initiatives.
- Conducted first aid courses, including CPR, for students and staff, training over 5,000 individuals.

2022 – Present **Campus Volunteer First Aid Responder**.

- Responded to over 50 emergencies, effectively managing diverse situations, including suspected cases of epilepsy, fractures, trauma, hyperventilation, and heatstroke.

Skills

Programming	Python, R, MATLAB, C++, Java, SAS
Data Analysis	numpy, pandas, matplotlib, seaborn, scikit-learn, pytorch, keras, tensorflow, XGBoost
Database	SQL, MySQL, PostgreSQL, MongoDB, Neo4j, Apache Hadoop, Apache Spark

Others

English Proficiency	CET-4/6; experienced in delivering multiple English presentations; well-equipped to seamlessly integrate English into both academic and professional endeavors.
Certifications	AHA HeartSaver®, Red Cross First Aid Certificate, China Red Cross Rescue Mentor Certification.