Yunxiang Yan

Email : ryan.yunxiang.yan@gmail.com

https://raccoononion.github.io/index.html

EDUCATION

Georgia Institute of Technology, College of Computing Atlanta, GA
MS in Computational Science and Engineering; Home unit: College of Computing *Aug. 2023 – Jun. 2025*

Southern University of Science and Technology, Department of Finance Shenzhen, China
BEc in Financial Engineering; CGPA: 3.6 / 4.0 *Sept. 2019 – Jun. 2023*

University of Notre Dame, Department of Computer Science and Engineering Notre Dame, IN
Exchange Student; CGPA: 3.9 / 4.0 *Aug. 2021 – May. 2022*

EXPERIENCE

Ricequant Shenzhen, China
Quantitative Researcher Intern *Mar. 2023 - Present*
- **Content**: Conducting research on multivariate time series prediction problems with modified Time Series Attention Transformer model (TSAT). Developing efficient infrastructure to train and fine-tune a large scale TSAT model in Tencent cloud server.
- **Tech Stack**: Pytorch, Cloud Computing, NumPy

Southern University of Science and Technology Shenzhen, China
Teaching Assistant for CS209 Computer System Design and Applications *Feb. 2023 - Jun. 2023*
- **Content**: Developed automatic Java code style checking tool for Github project. Designed and graded coding assignments. Provided tutorship for students during lab sessions.

Data Mining towards Decision Making Lab Notre Dame, IN
Undergraduate Researcher, Supervised by Dr. Meng Jiang *Aug. 2021 - Aug. 2022*
- **Efficient Methods to Sample from Large Graphs**: Designed a new framework to sample from large graphs while preserving several graph properties including degree distributions. Theoretical portion constitutes the paper accepted by SIGKDD 2022 UC. Link to paper: https://kdd.org/kdd2022/papers/24_Yunxiang%20Yan.pdf
- **Graph Anomaly Detection on Large Social Networks**: Analyzed the degree distribution anomalies in Twitter and Tencent Weibo datasets. Conducted experiments to justify the origins of the anomalies.

PROJECTS

- **Online Forum (Java)**: Course project for CS307 Principles of Database Systems.

  Developed an interactive forum with a PostgreSQL backend databse in JDBC. Supporing a wide range of functions including multimdedia display and a dynamic trending list. Self-implemented concurrent socket communication and connection pool with C3P0 and Semaphore.
- **Single Cycle CPU (Verilog, MIPS)**: Course project for CS202 Computer Organization.

  Developed a single cycle CPU with UART communication and VGA display. Conducted comprehensive tests on FPGA development board.

AWARDS AND SERVICES

- **Outstanding Undergraduate Thesis**: Modelling Return Correlations for Chinese Stock Market: An Application of Transformer Model
- **Best Visualization Award @ American Statistics Association DataFest Competition 2022** : Performed data analysis on healthcare dataset from Play2Prevent lab, Yale School of Medicine with Python visualization and data analysis tools. Presentation video: https://datafestnd.weebly.com/datafest-2022.html
- **Best Project Award @ University Public Welfare Challenge 2021**: Team leader of project GreenChamber. Project is under long-term maintenance in coopetation with school library.
- **Outstanding Volunteers Award @ SUSTech (Feb. 2021)**: Providing free online tutoring service for children of medical workers during COVID-19 pandemic.

SKILLS

- **Programming**: Python, Java, SQL, C/C++, Verilog, MIPS; PostgreSQL, Pytorch, Numpy, Scipy, OpenMP
- **Language**: English (Fluent, TOEFL 112, GRE 329); Chinese (Native)