

Yunxiang Yan

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

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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 database in JDBC. Supporting a wide range of functions including multimedia 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 cooperation 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++; PostgreSQL, Pytorch, Numpy, Scipy, bash, Linux, OpenMP
- **Language:** English (Fluent, TOEFL 112, GRE 329); Chinese (Native)