RYAN (MENGCHEN) QIU

615 S Wrigth St, Champaign, IL 61820

217-693-9372 | mqiu3@illinois.edu

EDUCATION

University of Illinois Urbana-Champaign   Champaign, IL

MCS, Master of Computer Science   *Aug. 2022 – Dec 2023*

Planned Future Coursework: Communication Network, Distributed System, Parallel Computing, Operating System Design, High Performance Computing, Combinatorics(PHD), Mathematical Statistics(PhD).

University of Illinois Urbana-Champaign   Champaign, IL

BS, Mathematics and Statistics; Minor in Computer Science   *Aug. 2018 – May 2022*

- **Honor:** Highest Distinction
- **Major and Minor GPA:** 4.0/4.0 **Cumulative GPA:** 3.89/4.0
- **Coursework:** Data Structure (A), Computer Architecture (A), OOP(A), Art of Web Programming (A), Machine Learning (A), Intro to CS I(Java) & II(C++) (A), Abstract Linear Algebra (A), Statistics and Probability I & II (A), Deep Learning (A), Time Series Analysis (A), Linear Optimization (A), Regression Analysis (A+), Differential Equations (A+), Honors Fundamental Mathematics (A+)

PROFESSIONAL & RESEARCH EXPERIENCE

Hwabao Warburg Pincus Fund Management Co., Ltd   Shanghai, China

Quantitative Developer Intern   *May. 2019 – July 2019*

- **FOF Stragety Research:** Constructed research on multi-asset FOF strategies(Risk Parity) and coded with python. Made improvements for existing strategy by modifying input data flow.
- **Financial Time Series Dataset:** Used PyTorch & scikit-learn training multiple models(ARIMA, Regression Tree, LR, LSTM) on CSI500 time series dataset. Results are directly used by Portfolio Manager.
- **Trading Engine Maintenance:** Cleaned and maintained trading data using python and generated reports on strategy performance.

University of Illinois Urbana-Champaign   Champaign, IL

Undergraduate Research Assistant; **Advisor: Prof. Richard Sowers**   *Jan. 2021 – June. 2021*

- **Gait Dynamics:** Worked with gait video datasets to recognize Multiple Sclerosis (MS) and Parkinson's disease. Implemented deep learning algorithms(LSTM, CNN, DNN) using PyTorch for data points features extracted via Open-Pose and applied multiple optimization methods to training process. Currently model hit 99.2 % validation accuracy on average.

University of Illinois Urbana-Champaign   Champaign, IL

Undergraduate Research Assistant; **Advisor: Prof.Tarek Abdelzaher & Prof. Jiawei Han**   *May. 2021 –*

- **DARPA SocialSim:** Worked as a Data Engineer on DARPA SocialSim Challenge. Collaborated with PhD students and wrote Python code for data cleaning, data visualization, network filling and model evaluation.
- **DARPA INCAS:** Worked as a Data Engineer on a newly launched Darpa project that focus on Information Campaigns. The goal of this project is to understand how influence messaging impacts people's beliefs/responses and what underlying factors contribute to shaping those responses.
- **Web Backend:** Developed, deployed and maintained RESTful APIs with other interns to communicate with users and the NoSQL database using Node.js and Express.js; Developed CI/CD piplines and enhanced the stability.

SELECTED PROJECTS

C++ DataFrame Package: A pandas-like C++ Package that can read and manipulate data as DataFrame.

PIGEON(CS498 RK), Roommate Matching Web: A web application focusing on roommate matching using React and Node.

Nearest Neighbour: Full Implementation of K-D Tree used to find nearest Point in N-Dimension using C++ its template.

SELECTED SKILLS

Languages: C, C++, Python, R, JavaScript, Java, Shell, Golang, HTML, CSS, SQL, MongoDB, Verilog, MIPS Assembly

Frameworks: React, Express, Node, Pandas, Matplotlib, Numpy, Torch, scikit-learn

Other Tools: Git, Docker, CMake, AWS