



# KYLE QIN

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## EDUCATION

### Rensselaer Polytechnic Institute

Troy, NY

*B.S. Dual Computer Science and Information Technology & Web Science  
Concentrated in AI & Data, and Web Technologies*

09/2018 – 05/2023

## SKILLS

**Programming Languages:** Python, Java, C, C++, JavaScript, Solidity, GraphQL, SQL

**Tools & Frameworks:** Git, Docker, Nginx, Redis, Node.js, React, FastAPI, Flask, NumPy, OpenCV, Pandas, PyTorch

**Areas:** Software Development, Database Management, Data Analytics, Computer Vision, Recommender System

## EXPERIENCE

### Summer Researcher | IDEA @ RPI

06/2022 - 08/2022

- Conducted reviews and analysis of over 10 peer-reviewed academic papers in weekly seminars.
- Collaborated closely with a team of researchers to discover applications of decentralized knowledge graphs in ML workflows.

### Software Developer | Rensselaer Center of Open Source

05/2020 - 05/2021

- Participated in CSSAW project. Developed pipeline of aggregation, cleansing, and visualization for land water equivalent thickness data, supporting sequential predictive model of water level in South Africa.
- Participated in YACS that supports 3000+ students with course scheduling. Developed various front-end utility components, implemented error handling processes for external and internal API endpoints. Enhanced UI functionality, responsiveness, and consistency.

## PROJECTS

### Tie | React, Node.js, Apollo, GraphQL, Neo4j, Docker, AWS — Jahnel Group Inc.

02/2023 – 05/2023

- Designed and developed UI, server API gateways, system workflow, and containerization. Accelerated project initiation, improved on team start-up speed and project timeline integrity.
- Developed and optimized a recommender system that quantified bidirectional project and candidate matching, boosted reliability and efficiency of the candidate selection and streamlined recruitment process.

### FlexSwarm | React, Python, Algorand — AI & Blockchain @ RPI

10/2022 – 12/2022

- Implemented the evaluation process for a decentralized ensemble model, enabling flexible label training and data quality evaluation.
- Developed front-end UI in React and executed system integration and testing, improved system interoperability and user interface quality.
- Researched and developed Proof of Quality consensus mechanism integrated with differential privacy, enhancing network trustworthiness.

### ChickenWinner | Python, React, Node.js, Apollo, GraphQL, MongoDB

02/2022 – Present

- Designed and implemented data pipeline and iterative training, allowed for continuous improvement of prediction accuracy.
- Optimized ETL pipeline with automated data aggregation service scheduler, isolated feature engineering module to support subsequent model horizontal upscale and additional evaluation metrics.
- Developed and optimized server micro-services and inter-service communication.

### Pokemon Battles | Node.js, React, Firebase, Web socket

02/2022 – 05/2022

- Designed and Developed "shop" feature user interface catering to the in-game economics and surprise elements. Constructed a specialized API endpoint to manage the retrieval of probabilistic 'mystery-egg' items, integrating the stratified sampling under provided arbitrary weights distribution.
- Implemented battle service and front-end state machine to support battle system functionality.