

Louis(Zhicheng) Xue

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Education

Tufts University

Sept 2019 - May 2023

Bachelor of Science in Computer Science - GPA: 3.9

Relevant Courses:

Operating System, Databases, Cloud Computing, Internet-Scale Distributed System, Cybersecurity, Software Engineering, Machine Structure & Assembly Language, Software Dev Tooling, Computer Engineering, Machine Learning, Web Development, Data Structures, Algorithms, Programming Languages

Work Experience

Athenahealth - Software Engineer Intern

Jun 2022 - Aug 2022

- Completed a project that integrated my team's application with LaunchDarkly, a feature flag management SaaS platform.
- Improved workflow during software rollouts by allowing rapid application configuration changes, targeting thousands of our clients.
- Redesigned and simplified application and database query logic as part of the integration process.
- Used Java, Spring Boot, PostgreSQL, Snowflake Datalake, AWS

Redline Trading Solutions - Software Engineer Intern

Jan 2022 - May 2022

- Implemented a market data simulator framework that allows the team to easily construct trading-protocol-specific network packets to test our market data handler softwares.
- Involved and completed a company-wide code refactoring project in preparation for supporting more exchanges and venues in our softwares.
- Used C, RHEL Linux, AWS.

Markit Social - Backend Intern

Jun 2021 - Sept 2021

- Designed and implemented new data query patterns, so that only the data relevant to the current app state is fetched, to improve app performance.
- Set up foundational backend utilities such as database backup, image resizing and caching, full-text search, etc
- Used Typescript, Cloud Firestore, Cloud Function, and React Native

Datasaur.ai - Software Engineer Intern

Jul 2020 - Aug 2020

- Worked on the custom script feature on Datasaur's NLP data labeling platform that allows clients to easily convert their own file format to and from Datasaur supported format.
- Enabled clients to test their converter script inside the browser by running it with their test files.
- Used Typescript, Web Worker, Monaco Editor, Docker, and React.

Projects

Universal Machine (UM) - in C

- Built a CPU emulator that uses a RISC instruction set.
- Optimized the UM with profiling tools like kcache/grind.
- Implemented an RPN calculator in the UM's assembly language.

Java on Rails - in Java

- Web server framework that supports Model, View, Controller paradigm similar to Ruby on Rails.

Multi-threaded Regex Matcher - in Java

- Converted a regular expression to a Nondeterministic Finite Automata(NFA)
- Used multithreading when there's non-determinism in the string to check if it matches the regex

Wikipedia Article Views - MapReduce, Hive

- Use AWS Elastic MapReduce Service to compute total views of wikipedia articles within a week
- Load results into Hive and perform data queries

Technical Skills

Languages: C, Python, Java, Javascript, Typescript, Bash, SQL, HTML, CSS.

Frameworks & Technologies: Node, Spring-Boot, Postgres, Git, AWS, GCP, React Native, MongoDB, Linux, Docker, Wireshark, Computer Organization, Jupyter Notebook, Scikit-learn