

EDUCATION

- **Northeastern University** Seattle, WA
M.S. in Computer Science, GPA 4.0/4.0 Sep 2023 – May 2025 (Expected)
Courses: Object-Oriented Design, Full-Stack Development, Software Security, Compiler, Operation System, Backend Architect
- **University of California AT Berkeley** Berkeley, CA
Master of Analytics, IEOR, CS Track; GPA: 3.93 / 4.0 Jun 2022 – May 2023
Courses: Algorithm, Data Structures, Structure & Interprets of Computer Programs, Software Engineering, iOS Development
- **Kean University** Union, NJ
Bachelor of Science in Finance, Minors in Mathematics and Economics; GPA: 3.91 Sep 2018 – May 2022
Courses: Calculus, Discrete Math, Information System, Database, Data Mining, Big Data Computing, Optimization

SKILLS

- **Programming Languages:** Python, Java, JavaScript, C, C++, R, Swift, Hive, SQL, MATLAB, HTML, CSS, Ruby, PHP, AMPL
- **Frameworks and Libraries:** Flask, Django, React.js, Vue, Spring Boot, SwiftUI, PyTorch, YRAN, Spark, MongoDB, Hadoop, Axios
- **Tools and Platforms:** Xcode, Docker, Postman, Bootstrap, Maven, Git, AWS, Vim, JUnit, JShell, Node.js, Markdown, Element-UI

EXPERIENCE

- **Sports Excitement** San Francisco, CA
Software Engineer Intern - Full Stack, Developed on back-end architecture, fastened searching algorithm Mar 2023 - Aug 2023
 - **Web Application:** Built an web service to improve discovery and analyst efficiency via fast searching for college athletes
 - **Optimization:** Resulted in 30% improvement in athletes' discovery efficiency, saving 3,000+ person-hours a month at a low cost.
 - **Models:** Utilized serverless AWS infrastructure to support a highly scalable, cost-efficient, fault-tolerant, and secure architecture
- **Meituan** Beijing, China
Data Analyst Intern, Developed mini-application and KanBan system to improve analysis efficiency Jun 2021 - Nov 2021
 - **Optimization:** Remodeled and optimized Hive SQL **E.T.L** process in **Hadoop**, increasing **downstream efficiency** by **12.1%**.
 - **Framework:** Tuned **Spark Context** for large-scale data processing by **broadcast** variables, reducing the queue traffic by **17%**
 - **Models:** Deployed statistical and analytical models using **Flask** platform, improved team's decision process. Exploited **Shiny App**, **HTML**, **CSS** to design an interactive **web tool** on Geo-Spatial data, potentially activating user participation by **50.5%**.
- **Tencent** Shenzhen, China
Data Engineer Intern, Focused on Data infrastructure and deployed Machine Learning Models on Platform Feb 2021 - Jun 2021
 - **Engine:** Collaborated in China's leading Tech (Baidu, Tiktok etc.) to build engine capable of storing and analyzing job-text data.
 - **Data:** Utilized **MongoDB**, **Spark**, **SQL** to store and distribute over **200,000+** job description and built data back-end **API**.
 - **Models:** Launched several **SVM** class classification models on **Flask Web Service**, Optimizing the model's macro-F1 by **16.7%**.

PROJECTS

- **InvestoPal: A Real-time Financial Analysis iOS App** Berkeley, CA
Full Stack Developer, Developed on back-end architecture, fastened trading algorithm Feb 2023 - Jun 2023
 - **Function:** Collaborated in a team to design an FinTech iOS app using **Figma** and **Swift**, integrated algorithmic trading and analysis of stock within one app, enabling the functions of stock investment, digital wallet, performance analysis, and auto-strategy.
 - **Database:** Built **API** to access real-time stock data and stored in **MongoDB**, reducing the processing latency and traffic by 25%.
 - **Education:** Promoted a range of learning resources and tools to 100+ users to enhance their financial and investment skills.
- **RookieDB: Designing an Efficient Database** Berkeley, CA
Course project of CS186: Database System, Developed on back-end architecture, fastened searching algorithm Dec 2022 - May 2023
 - **Function:** Developed a database with B+ Trees Indices, efficient join algorithms, and SQL query optimization.
 - **Co-currency:** Build multi granularity locking to allow concurrent execution of transactions database recovery.
 - **Test:** Constructed in Java with JUnit testing to check for Data Race situation, achieved up to **90%** code coverage.
- **Management System: A System with Front-End and Back-End Separation** Union, NJ
Team Leader, Developed on back-end architecture, fastened searching algorithm Apr 2022 - May 2022
 - **Function:** Deployed **Springboot**, **Mybatis**, **MySQL server**, and **Vue** to generate a management system with functionalities of *insertion, deletion, modification, and query*. Used **Axios** as main functions to transfer data.Used **Postman API** as Test platform
 - **Back-End:** Developed Back-End platform by **Java Maven** to create **Controller** and **Mapper** for the basics functionalities.
 - **Front-End:** Designed 5+ Front-End pages by integrated **Element-UI** and **Bootstrap** platform.
- **Gitlet: Mini Version Control System** Berkeley, CA
Course project of CS61B: Data Structure, Developed on back-end architecture, fastened searching algorithm Jun 2022 - Jul 2022
 - **Function:** Designed a Git-like **version-control system in Java**, including key functionalities such as *init, commit, remove, log, checkout, branch, merge, and reset*. Used **TreeMap** as main data structure instead of **LinkedList** to reduce code base size by **50%**.
 - **Persistence:** Persisted data using **Serialization** and **Hashing**, reducing data retrieval run-time by **10%**, increasing loading data.
 - **Test:** Designed **JUnit tests** and **end-to-end testing flow** for code base, achieving test coverage of **85+**%.

PUBLICATION

[1] Dai, Y., Chen, R., et al. *The Relationship Between Twitter Sentiment and Stock Performance: A Decision Tree Structure*. Proceeding of the 56th Hawaii International Conference on System Sciences (Top 2). 978-0-9981331-6-4