Christo G. Karahalios

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EDUCATION

Southern Methodist University, Lyle School of Engineering   Dallas, TX

Majors: *Computer Science (B.A.), Data Science (B.S.), Economics (B.A.)*   Aug 2021 – May 2025

- Major (Computer Science) GPA: 3.80/4.00 | ACT: 34
- College tuition paid through *Second Century Scholarship* and *Hilltop Scholarship* (merit-based scholarships)

Relevant Coursework: Algorithms, Calculus I & II, Computer Organization, Discrete Computational Structures, Data Structures, Linear Algebra, Machine Learning, Artificial Intelligence, Statistics, Natural Language Processing, Econometrics, Economic and Business Forecasting

EXPERIENCE

Blueline AI   Long Beach, CA

Full-Stack Software Engineer Intern   May 2024 – Jul 2024

- Built a resizable, interactive sidebar using React and Mantine components to allow users to view, filter, and select template examples and enhanced user interface by adding smooth transitions, hover effects, and rounded elements.
- Implemented APIs using tRPC and React Query, harnessing Zod schema validation for input handling.
- Devised reliable and efficient tRPC endpoints to perform CRUD operations on PostgreSQL data.
- Redesigned the database schema to include additional fields and relationships, modularizing the data model.

Coastal Renting Apartment Homes   Long Beach, CA

Data Researcher, Accounting Intern   Jun 2023 – Aug 2023

- Flagged buying and selling opportunities employing both Automated Valuation Models (AVMs) and traditional methods of appraisal such as sales comparison, income approach, and price per square foot.
- On site experience scouting valuable properties and remodel potential (algorithmic vs. experiential appraisal).
- Integrated properties, tenant profiles, and transactions into a cloud-based property management software.
- Sorted cash flows by debits and credits per property in monthly increments and corrected past imbalances in Excel.

PROJECTS

JSON Search Engine   Dallas, TX

Co-Developer, C++, 1st Place   Jan 2023 – May 2023

- Piloted the creation of a search engine that indexes large data sets of financial articles, prioritizing efficiency and relevant results using caching, data mapping, and numerous hash functions for each respective data type.
- Implemented custom features that improve the end-user experience, such as supporting custom search flags and adding sub-querying capabilities so that users can perform searches within their initial search results.
- Developed a relevancy algorithm derived from term frequency-inverse document frequency (tf-idf) while eliminating a bias for larger documents, winning first in the school wide competition for efficiency and relevance.

Tweet Sentiment Analyzer   Dallas, TX

Developer, C++   Jan 2023 – May 2023

- Engineered a precision-focused Tweet Sentiment Classifier, seamlessly incorporating the Kaggle Tweet Dataset and implementing advanced techniques such as word vectorization, stemming, and meticulous text cleaning.
- Achieved exceptional accuracy in sentiment analysis, showcasing proficiency in statistics, natural language processing and discrete mathematics, all while optimizing performance and adhering to industry standards.

ACHIEVEMENTS

- Hilltop Scholar and Second Century (Merit-Based) Scholarship
- 1st Place, JSON Search Engine Efficiency Competition
- Top 5 Placement, Tweet Sentiment Analysis Competition, 71% Accuracy, Lead Developer

ADDITIONAL INFORMATION

Technical Skills: C++, Java, Python, R Studio, MATLAB, TypeScript, Web Development, tRPC, Prisma, Full-stack Development, Debugging, Pandas, NumPy, Operating Systems, Machine Learning, Artificial Intelligence, Data Structures, Algorithms, Microsoft Office, Statistics and Probability, Linear Algebra, Calculus

Interests: Muay Thai, Weightlifting, Fat Tails, Randomness, Philosophy, Chess, Minnesota Vikings, Beta Theta Pi