Ethan Rohman

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EDUCATION

- **Drake University** — Des Moines, IA
  Bachelor of Science in Computer Science; GPA: 3.86

EXPERIENCE

- **QCI (Quality Consulting Inc.)** — Des Moines, IA
  Software Developer — *July 2024 - Current*
  - **Programming Languages**: Contributed to production services in Java, Bash, Typescript, CSS, React/tsx, and SQL.
  - **Front End**: Worked with a team to re write two complex form and dashboard applications in React with the help of Redux for state management and client data caching. Extensive test writing including unit (vite and jest), integration, and end to end (playwright).
  - **Back End**: Contributed to a Node.js server using the Hapi.js HTTP server framework. This server used many AWS services and json web tokens to authenticate incoming requests. In a later development cycle, database operations and aws services were offloaded to a spring boot REST API. Wrote tests for both servers at the unit and end to end level to increase the chance of catching bugs.
  - **Databases**: Wrote Terraform to deploy an Aurora Serverless RDS database, included these deployments with Flyway for easy database schema updates, and GitHub actions to kick off deploy pipelines. This database was the main source of data my team managed and drove our dashboard insights. Used DynamoDB to cache data while a larger processing pipeline runs.
  - **DevOps**: Deployed AWS services our team used with terraform including all the necessary policies, secrets, and security features. Wrote GitHub action contributions for running test pipeline steps and bash scripting for setting up the action runner environment.
  - **Tools**: Rely on vim and tmux for editing files, and switch to traditional ides when standard debugging is required. Frequently use command line interfaces to interact with services and libraries including the aws cli.
  - **Project Organization**: Worked with a team that uses daily stand up meetings and Azure dev ops for tracking work tickets. Majority of our workflows rely on github enterprise features integrating aws resources.

- **UnitedHealth Group (Surest: A UnitedHealth Care Company)** — Minneapolis, MN
  Data Science Intern — *May 2022 - May 2024*
  - **Data Analysis**: Conducted a comprehensive analysis of text message campaigns to assess engagement increases, utilizing Python, Pandas, and SQL for data manipulation and analysis.
  - **Machine Learning**: Developed a question-answer bot using sentence transformers and built a vector store with a custom embedding model for enhancing search capabilities, managed deployment with MLflow, and fine-tuned chat models for suggesting answers to partial questions.
  - **Search Engine Improvement**: Designed extension of search feature using embedding models, including building a custom vector store for improved search results and user experience.
  - **Interactive Development**: Solved for creating and testing with local instances of Elasticsearch to fine-tune search parameters.
  - **Data Engineering**: Contributed to complex pyspark pipelines in Databricks and Ascend, including interacting with AWS S3, employing GitHub for source control and automation in Jenkins.
  - **Presentations**: Formally presented findings and projects to groups as large as 40, demonstrating strong communication skills and the ability to translate complex technical details into business insights.
  - **Agile Methodologies**: Experienced in Agile development methodologies, actively participating in sprints, managing stories in Jira, and utilizing Notion for project documentation and collaboration.

- **Personal Projects**
  github: Ethan Rohman
  - **Doughflow**: Collaborating on a finance web application using a PostgreSQL, Django, and Next.js tech stack.
  - **Latex document Hot Reloading**: Worked through Lua and multi threaded python to compile latex files into pdf documents on file save.
  - **Documentation, Work Ticketing, and Version Control**: Continue to research different ways of documenting, planning, and backing up work.