

Samuel Hieken

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Education

Bachelor of Science in Computer Science, Economics Minor
Miami University / *Oxford, OH*

08/2021 – present

Work Experience

Data Integration Intern

Miami University IT Services / *Oxford, OH*

03/2022 – present

- Build various Application Programming Interface (API) integrations for Miami University's IT department
- Act as administrator on Miami's data warehouse (MSSQL). Created "sandbox" tables and stored procedures
- Utilize low code platform (TeamDynamix iPaaS) and Python

Technology Intern

Eli Lilly and Company / *Indianapolis, IN*

05/2024 – 08/2024

- Solved production failures and enhanced onboarding capabilities through the redesign of a low code issue tracking system
- Modernized technology stack. Old architecture based on PowerApps and SharePoint. New architecture based on Next.js, Spring Boot (Spring Web MVC), PostgreSQL, and AWS EC2
- Acted as the sole full-stack developer and AWS engineer. Collaborated with business partners to ensure the system fit their needs

Projects

U.S. Congressman Digital Profile (<https://congress.csi.miamioh.edu>)

04/2023 – present

- Built a digital profile for every U.S. Congressperson. Created with Next.js, Spring Boot, and PostgreSQL. Includes frontend and backend analytics (Google Analytics and Superset respectively)
- Built and designed entire stack. Started as individual project, but Miami University agreed to maintain it after graduation
- Participated in television interviews with Spectrum News 1 Cincinnati and Local 12 Cincinnati to discuss the project

Market Sentiment Analysis Natural Language Processing (NLP)

01/2023 – 08/2023

- Designed a small transformer-based machine learning model
- Used NLP to classify a piece of news (tailored towards financial news) as either positive, negative, or neutral

Subprime Lending Project

04/2022 – 04/2023

- Worked on personal project to automate the underwriting of subprime loans
- Designed full stack application; stack includes React, Spring WebFlux, Postgres, Keycloak, Plaid, Dwolla, and Microbilt

Campus Involvement

Independent Natural Language Processing Research

Miami University, Office of Research and Innovation / *Oxford, OH*

01/2022 – 08/2022

- Designed model attempting to distinguish AI generated text from human generated text
- Utilized Miami University's High-Performance Cluster to run the model. Stack included Hugging Face Transformers (retraining GPT-2), Hugging Face Accelerate, Pandas, Python, and Slurm

Robotics Club

Miami University / *Oxford, OH*

01/2024 – present

- Redesigned Meccanoid G15 robot to be controlled from an Arduino Mega board. Worked on hardware and software
- Mentored robotics members in the new design of the Meccanoid G15

Skills

- **Programming:** Agile (Scrum), Java, Spring Framework (+ Spring WebFlux & other Reactive Spring), JDBC, JPA, Hibernate, Hibernate Reactive, JavaFX, Swing, DeepLearning4J, SQL, HTML / CSS, JavaScript, TypeScript, React, Next.js, Fetch, MSAL.js, keycloak-js, MetaMask RPC, Plaid Link, Python, Flask, Pandas, Keras, Selenium, SAS
- **Software:** Apache Suite, Apache HTTP Server, Apache Superset, Insomnia & Postman, Git, GitHub, Fluentd, FluentBit, Cygwin, Linux (Ubuntu, Mint, CentOS), PostgreSQL, Redis, SSH/SCP, Slurm, CRON, NFTables/Iptables, PM2, Keycloak, AWS (EC2), Google Analytics, Entra (Azure Active Directory), Power Automate, Power Apps, SharePoint, Excel/Word/PowerPoint, swagger-ui, swagger-editor, Docker, Supabase
- **APIs:** Slack, Microsoft Graph, Plaid, Dwolla, TeamDynamix, Microbilt, Experian, Supabase, OpenAPI