Milo Chase

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EDUCATION

University of Chicago   Chicago, IL | Jun 2023
B.S. Computer Science with Honors Specialization in Machine Learning
GPA: 3.7/4.0 | Dean's List 2019-2020, 2021-2022
Graduate-level coursework: Deep Learning; Database Systems; Usable Security and Privacy
Coursework: Machine Learning; Abstract Linear Algebra; Computer Architecture; Computer Systems; Computer Security; Programming Languages; Discrete Mathematics; Theory of Algorithms; Complexity Theory

WORK AND RESEARCH EXPERIENCE

AMAZON | Software Development Engineer   Portland, OR | Jul 2023-Present

- Working on high-volume (1000+ TPS) low-latency systems and high-traffic websites (millions of daily visits).
- Mentoring a junior developer to help navigate the Amazon ecosystem and support early career development.
- Trained to become a security certifier to audit apps involving critical data and help keep a high bar on AppSec.

CHICAGO HUMAN + AI (CHAI) LAB | Research Assistant   Chicago, IL | Dec 2021 – Dec 2023

- Co-authored a paper quantifying uniqueness and divisiveness in presidential discourse, published in **PNAS Nexus**⇗.
- Collaborated with Dr. Chenhao Tan and others to analyze presidential politics and language using NLP techniques and a novel LLM-based metric of uniqueness we developed.
- Built a **scraper** ⇗ using Python for the American Presidents Project archive to create a dataset that tags the speaker using heuristic signals in the rich content.

AMAZON | Intern   Portland, OR | Jun 2022 – Sep 2022

- Designed model analysis and monitoring dashboard for a Machine Learning team in Partner Services.
- Developed ETL processes operating on 10 billion+ rows of data using Scala and Spark and internal Big Data tools.
- Implemented system requirements with CI/CD by using AWS CDK to define all cloud infrastructure as code.

CURRICULUM ASSOCIATES | Intern   Billerica, MA | Jun 2021 – Sep 2021

- Designed and maintained UI test automation suite using Selenium and JavaScript to ensure quality.
- Researched and presented a new process for selecting web elements in Selenium which my team implemented.
- Learned and worked with Node.js and Docker as they are used for CA's product suite.

PROJECTS

MIXGEN ⇗   Flask, React-Redux, PostgreSQL, GPT
A web application leveraging LLMs to automatically generate music playlists based on a natural language prompt. After connecting to Spotify, MixGen will produce a list of candidate songs from the user's library based on their description. The user can then choose the songs they like and MixGen will create the playlist for them directly in their spotify account.

CONNECTFOUR AI ⇗   Racket, Artificial Intelligence, Functional Programming
A connect-four AI bot which utilizes the minimax algorithm with a depth of 5. Maybe has beaten me before..

MYSHELL ⇗   C, Computer Systems, Shells
A homemade shell. Some key features include batch scripting support, output file redirection, and command chaining.

SKILLS

Languages: TypeScript, Java, Python, C, Rust, SQL.
Technologies/Frameworks: React/Redux, GraphQL, AWS Cloud Technologies, Node.js, Spring, Jest, JUnit, Cypress, Docker, Linux, Git.
Other: Solid at chess.