

Michael Dreiling

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June 2024

Skills

I've spent enough time with everything listed here that, if thrown into a random codebase, I'd be adequately proficient. They are listed in no particular order.

Languages

Rust, Python, C/C++, Javascript/Typescript, HTML/CSS, SQL, C#, Objective-C/Swift, Java/Kotlin, PHP

Technologies

Web Frameworks (Flask, Django, FastApi, .Net Core, Laravel); Javascript (React, Vue, Svelte, Angular, D3, GSAP, Leaflet, Lit / Web Components); Databases (MySQL, SQL Server, Postgres, SQLite, MongoDB, Elasticsearch, SingleStore); CSS (Tailwind, Bootstrap, Shoelace); OpenGL (ThreeJS, PixiJS, OpenFrameworks, Cinder); Mobile (iOS Development, Android Development, PWAs); Web Servers (Nginx, Apache, IIS); Cloud (AWS, Azure, VMware vSphere); AI (Supervised Learning, Unsupervised Learning, GenAI, Vector Stores); Other (Kubernetes, Docker, Vuforia, Meridian, Mapbox, Carto, Extendscript)

Continuing the lists, I'm equally at home on OSX, Windows, and Linux (Debian/Ubuntu, Redhat/Fedora/CentOS, SUSE); would find it hard to live without git, the shell, or WSL/Cygwin; have practical knowledge and background in algorithms, mathematics, compilers, interpreters, machine learning, asynchronous programming, and computer networking; and am skilled enough for simple design work in Photoshop, Illustrator, After Effects, Figma, and Adobe XD.

Education

Bachelor of Science in Computer Science

University of Kansas

2006-2011

Lawrence, KS

The computer science program at KU is a degree from the School of Engineering's department of Electrical Engineering and Computer Science (similar to MIT). The majority of the program was taught in C++, along with a decent amount of Java, Scheme, Haskell, and Python sprinkled in.

Employment History

Senior Software Engineer

Cleveland Cavaliers

December 2020-Present

Cleveland, OH

The Cleveland Cavaliers are one of thirty professional NBA franchises. As part of the front-office's analytics team, I create, refine, and innovate internal tooling for player and team analytics used by the coaching, scouting, and basketball operations leadership.

Lead Software Engineer

Cleveland Museum of Art

August 2017-May 2020

Cleveland, OH

The Cleveland Museum of Art is a world-renowned art museum located in Cleveland, OH. It is the only major art institution in the nation with an entire gallery dedicated to discovering the museum's collection through digital technology (Artlens Gallery). As the lead software engineer, I'm was a part of a small team dedicated to refining and perfecting those digital interactives, along with improving the museum's various websites, apps, custom internal software tools, and custom temporary exhibition interactives.

<https://youtu.be/XYRjaZI08IQ>

Creative Engineer

Local Projects

June 2015-June 2017

New York, NY

Local Projects is an award-winning experience design studio located in lower Manhattan. As a creative engineer my role included a significant amount of backend and mobile development (both

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Android and iOS), alongside a fair amount of frontend. Clients included the American Museum of Natural History, the Museum of the City of New York, the Cleveland Museum of Art, Brookfield Place, Chipotle, IBM, and the Fashion for Good Initiative.

<https://vimeo.com/192181904>

<https://vimeo.com/200893469>

Programmer Analyst

July 2011-May 2015

U.S. District Court, District of Kansas

Kansas City, KS

The District of Kansas is one of 94 federal judicial districts in the United States. It encompasses the entire state. As the sole software engineer, I created several applications that helped streamline the work of the court—making its opinions more accessible to the public and its employees more efficient—and maintained and extended many of its existing applications. A few of the applications/approaches had national impact.

Undergraduate Researcher

January 2010-December 2010

University of Kansas, ITTC

Lawrence, KS

The Information and Telecommunication Technology Center (ITTC) is the preeminent scientific research center at the University of Kansas. As an undergraduate researcher under the direction of professor Doug Niehaus, I worked on creating a competitive alternative to Westlaw and Lexis/Nexis. Work included automatic parsing and interpreting of legal case citations, custom Google-like ranking of legal cases, analysis of large sums of legal data (hundreds of thousands of cases), and traditional/geographical representations of legal data.

Student Engineer

Summer 2007-December 2007

Fort Hays State University

Hays, KS

Fort Hays State University is the largest university in western Kansas, located in my hometown. As a student engineer, I created fully immersive flash-based websites (the original single page apps) for the 2007 and 2008 Encore Series; created a complete e-commerce store for the athletics department; and maintained a large majority of the university's public facing website.