GitHub
LinkedIn
Portfolio

gray.daniel.w@gmail.com
Columbus, OH
(740)-491-4843

Daniel Gray

I am a full-stack software engineer with a background in molecular modeling and protein design. My educational background in chemistry provides me a significant understanding of data analysis, modeling, and computational skills. My experience as a software engineer has afforded me proficiency in the professional side of software engineering. A passion for learning is my best skill; I'm never comfortable with my current expertise.

Work Experience

Software Engineer III: J.P. Morgan Chase
2024/06 – present

- **Fullstack** engineer on an internal JPMC app used by PMs and CMs. App includes ~50 code repos, ~30 microservices, hybrid cloud architecture, highly confidential information, and 24/7 production support.
- **Technical work** has included full-stack app development using JPMC's internal best practices, designing and implementing several new UI features, development of an entire Spring Integration microservice, handling several database migrations, managing a few deployments, a complete update of our terraform-based infrastructure (hadn't been updated in almost 3 years), deploying new s3 buckets and an rds database in AWS, mentoring several younger engineers on frontend best practices, and currently contributing to a complete rewrite of the frontend.
- **Production Support** is also an important part of this role, which includes both technical and business support around the clock as necessary. My manager was on 4 months leave during which time I "managed" the Columbus office production support hours.
- Participation in voluntary JPMC trainings including a 12 week "Engineering Foundations" course and currently taking a 12 week "Investment Fundamentals" course.
- Multiple recognitions from coworkers for productivity and teamwork.

Software Engineer: Google TVC through RAYBEAM/DEPT
2021/11 – 2024/06

- **Fullstack** engineer on two internal Google apps used by thousands of Google employees
- **Technical work** included full-stack app development using Google's internal best practices, automating big data processing, API design/development, database management, sensitive data handling, UI/UX design, implementing alerting and data health dashboards for various services, AI integration using Google's internal Bard APIs, and developing from scratch a custom SQL/regex interpreter which is currently used to curate media coverage data.
- I earned Google's internal **Typescript readability** which means I reviewed and approved TS code throughout the Google monorepo.
- Multiple **Raybeam Kudos** from multiple managers for my productivity and project ownership.

Web Developer: independent contractor
2020 – 2021

- **Missio**: initial website for AI startup built in NextJS/Tailwind and deployed in Vercel (has since been edited)
- **CUF**: website for small non-profit built with LAMP-JS stack

Software Engineering Skills

- **Languages**: Typescript, Go, Javascript, Python, Java, C++, SQL, CSS/HTML, PHP, Terraform, Bash, PowerShell
- **Frameworks**: Angular, Jasmine, Flask, Gin, Next.JS, Spring, Jest, JUnit, Svelte, VueJS, JavaFX
- **DB Tools / DBMS**: MySQL, PostgreSQL, SQLite, Sqlalchemy, MS SQL Server, Alembic, PhpMyAdmin, Firebase, RDS, Redis
- **Software Tools / Libraries**: GCP, AWS, Git, RxJS, NodeJS, Protobuf, Gunicorn, Kubernetes, React, Lit Components, Tailwind, Processing, Webpack, SASS, Vim, Maven, Docker, Jules, Splunk, Spinnaker, Gradle, Angular Material

Education and Certificates

GCP Professional Cloud Developer: certified 2023/06

Graduate (Physical Chemistry): UIUC
2019/08 – 2021/09
- **GPA**: 3.93/4.00 (21 GPA credits, 47 research credits)
- **Project**: Design a functional model of the nitrogenase active site in a known, globular protein using software-aided rational design
- Wrote a Python program to search the protein database for proteins with a pocket of an input size / shape
- **Teaching Assistant**: On "List of Teachers Ranked as Excellent by their Students"

Undergraduate (Chemistry, Math): Franciscan University of Steubenville
2015/08 – 2019/05
- **GPA**: 3.99/4.00 (170 credits)
- **Awards**: Top B.S. student of class of 2019, Chemistry award for 2019, Alpha Chi
- **Thesis**: Programmed from scratch Monte Carlo and molecular dynamics simulations of a simple water model to examine the thermodynamic effects of macromolecular crowding

Select Personal Projects

Game Lobby: web-based game lobby
- Users can chat, create/join rooms, and play esoteric games
- Built in TS (with Webpack), Go (with Gin), and PostgreSQL; deployed in GCP

Chess Engine: Basic chess engine with built-in UI
- Utilizes bitboards, iterative deepening, negamax search, quiescence, piece-square tables, configurable search and evaluation functions, and transposition tables.
- Built in Java/Gradle with a simple JavaFX UI

Exact Calculator: CLI calculator returning exact results
- Demonstrates interpreter skills of (tokenize => parse => evaluate) with a versatile AST which allows programmatically trivial extensions of math functionality
- Built in Go with no external dependencies

LAN Tetris: desktop multiplayer Tetris-like app
- Simple implementation of a Tetris-like game with support for multiplayer over LAN
- Built in Java with the Processing UI library, JUnit tests, and JavaFX

Other Interests

- Foster parent (2024 – present)
- Former Corporal in the USMCR (2020 – 2023) until my unit got shut down due to internal restructuring
- Backpacking: my favorite place so far is definitely Yellowstone
- Chess has been my favorite game since childhood but only recently have I started attending tournaments