Wolf Mermelstein

404wolf.com | github.com/404Wolf | linkedin.com/in/wolfmermelstein | wolf@404wolf.com | (212)767-WOLF

EDUCATION

Case Western Reserve University   **August, 2023 – Anticipated May 2026**
B.S. Computer Science, Minor in Math & Finance, 3.93 GPA   Cleveland, OH

- **Courses** OS, Compilers, Networks, Algo/Data Structures
- **Experience** Veale Snyder Fellow, Linux Club Co-President (club "syllabus" and talks), Board Game Club President, Case Western ThinkBox Student Project Fund @ $630 (blog), Software Craftsmanship TAing

Bard Early College   **September, 2021 – June, 2023**
Associate of Arts, 4.00 GPA   Queens, NY

AWARDS & HONORS

HackCWRU (University Hackathon) First Place (project blog)   **February 2024**
Microsoft Bug Hunter Acknowledgment (writeup blog)   **March 2022**

EXPERIENCE

Fullstack Software Engineer   **May 2025 – Present**
Val Town   Easy, fun, & instant serverless JavaScript functions-as-a-service platform.   NYC

- Designed and wrote CLI companion (blog, code) to author Vals locally, with atomic bidirectional syncing.
- Integrated Deno (TS) language server into Codemirror web editor (blog, code) with Cloudflare Containers (talk).
- Helped architect and implement custom K8s load balancing system. Worked on backend redesign to enable higher throughput with sharding using Pingora, and WebSocket support via Undici w/Unix socket file watchers (blog).

Participant   **June 2023 – August 2024**
Recurse Center   Brooklyn-based self-led coding retreat   NYC

- Learned Nix and contributed packages to nixpkgs. Working on project to dockerize Android emulators with Nix docker tools (blog, code).
- Created Python Django server to merge Webster, OpenAI, and other API data into elegant English Vocab flashcard PDFs (blog, code). Generated vector art using template SVGs and Chrome Devtools Protocol.
- Created fullstack personal website (Nextjs), with blog editor, media management, and more. (blog, code, v2 code)

Co-founder; Solo Software Engineer; Sales Manager   **June 2021 – July 2022**
Minecraft Name Autoclaiming   Online self-run business   Remote

- Developed system to autoclaim desirable Minecraft usernames at moment of release. Automated server deployment and account distribution for 50-80 accounts/servers. Designed name queue, server-setup scripts with AsyncSSH & SFTP, concurrent deployments with Vultr API & Aiohttp, and admin interfaces. (blog, code)
- Managed auctions and sales for 100+ buyers, generating $6,000+ in revenue with 200+ unique accounts sold. Maintained consistent positive customer feedback & regular reorders.

PROJECTS

DNA Nanotube Designer Tool (blog, demo, overview, code)

DNA nanotechnology academic research project. Developed interactive PY-QT desktop app to streamline geometrically constrained DNA nanotube design. Collaborated w/bionanotechnologist to create important algorithms like determining helix strand switch behavior on junction clicks. Designed custom export file format. Wrote manual and helped draft scholarly paper (WIP).

MDvalidate (blog, code)

CLI tool to validate the *shape* of arbitrary Markdown and extract data from it using a custom schema language that aesthetically *resembles* the Markdown it validates (as an example, the schema `# Hi `name:/.+/`` validates Markdown like `# Hi Wolf`). Designed schema language and custom AST zipper tree algorithm with streaming support for incomplete trees. Built with Rust and Treesitter.

SKILLS

- **Languages:** TypeScript/JavaScript, Nix, Rust, Go, Python, Bash, Java, Lua, C/C++, Scheme/Racket, (postgre)SQL, HTML & CSS, Markdown & LaTeX, Typst
- **Tools:** Nix & NixOS, Linux, Web frameworks (React, Next, React-router, Tailwind, Prisma/Drizzle, Remark/ rehype, etc), Python frameworks (numpy, pandas, django, PyQt/PyQtGraph, etc), database systems (Postgres, Clickhouse, Redis/valkey), General devtools (Git, github workflows, GNU, Yazi etc), AWS (s3, ec2, etc), real-time networking WebAPIs (WebSockets, WebRTC, etc) (demo), Vim wizard :)