Wolf Mermelstein

www.404Wolf.com · (212)767-WOLF · wolf.mermelstein@case.edu · linkedin.com/in/wolfmermelstein · github.com/404Wolf

Education

- **Case Western Reserve University** — Cleveland, OH
  Relevant courses: *Data Structures, Linux Tools/Scripting, Logic Design, Accounting/Corporate Finance* — *Anticipated 2027*
  Experience: *Tabletop Empire (board game club) Vice President, Student Gov. IT Working Group member*
- **Bard Early College** — Queens, NY
  Associates of Arts; 4.00 GPA — *Sep. 2021 - June 2023*

Awards & Honors

- **Veale Snyder Fellow** — *August 2024*
- **HackCWRU (University Hackathon) First Place** — *February 2024*
- **Case Western ThinkBox Student Project Fund ($630)** — *October 2023*
- **Bard High School Early College Departmental Nanoscience and Ancient Latin awards** — *May 2023*
- **Microsoft Bug Hunter Acknowledgment** — *March 2022*
- **Hackett Certificate for "greatest proficiency in oratory, either verse or prose"** — *May 2022*

Experience

- **Recurse Center** — Brooklyn-based self-led coding retreat
  Participant — *June 2023 - August 2023; June 2024 - August 2024*
  - **Personal Website**: Designed website with TS/TSX, React, & tailwind. Implemented custom post editing system with Postgres/Prisma-ORM & AWS S3 to store/fetch/render posts. Wrote backup and migration scripts in TS. Created special markdown parsing system with custom Rehype plugins. Wrote Obsidian plugin to sync/edit blogs.
  - **NixOS & Nix Builds**: Contributed to nixpkgs. Configured NixOS desktop system from scratch w/Hyprland, home-manager, and other extensive customizations. Learned Nix language/packaging binaries & various programs. Working on project to dockerize Android emulators with Nix docker tools.
  - **Generated Vocab Cards**: Created Python Django server to merge Webster, OpenAI, and other API data into elegant English Vocab flashcard PDFs. Made system to generate vector art using template SVGs and Chrome Devtools Protocol.
- **Brooklyn Robot Foundry** — Robotics afterschool & summer camp franchise
  Design Team Member; Teacher — *July 2020 - June 2023*
  - **Design system overhaul**: Crafted dynamic presentation templates and inventory management systems for designers & teachers, improving robot kit creation process. Educated staff on using the materials.
  - **Curriculum Design & Teaching**: Developed novel 'inventors' curriculum fostering open-ended exploration with 40+ unique lessons, taught to 10-12 year olds throughout the country & created content for astronomy 'Science Lab' course w/thorough, interactive lessons for 6-9 yr olds. Taught classes, including my curricula, to groups of 5-12 8-13 year olds.
- **Minecraft Name Autoclaiming** — Online self-run business
  Co-founder; Solo Software Engineer; Sales Manager — *June 2021 - July 2022*
  - **Software Engineer**: Developed system w/Python to autoclaim desirable Minecraft usernames at moment of release. Automated server deployment and account distribution for 50-80 accounts. Implemented automatic name queue, server-setup scripts, AioHTTP Swagger-Spec'ed management server, and admin interface. Utilized Vultr API for server deployment and AsyncSSH for auth & SFTP.
  - **Sales Management**: Facilitated sales process and auctions for over 100 buyers, generating $6,000+ in revenue with around 200 unique accounts sold. Maintained consistently positive customer feedback and regular reorders.

Projects

- **DNA Nanotube Designer Tool ("NATuG") (blog, code)**: DNA nanotechnology academic research project. Developed interactive PY-QT desktop app to streamline geometrically constrained DNA nanotube design process. Collaborated w/bionanotechnologist to design important algorithms, e.g. DNA helix strand switch behavior on junction clicks. Designed export file format. Began working on scholarly paper
- **Coin Sorting Bot (blog, code)**: Robot to sort coins by date. 3D printed body with mechanism that sends coins down chute to photo them and deflect into canisters. Django/S3 backend for processing.
- **Android in the Browser (blog, code)**: Developed toolchain to stream Android to browsers over WebRTC w/Janus Gateway for low-latency video stream. Using Nix for Android packaging, React for frontend, Bun for APIs, and Android development tools. Goal is interactive Android in browser w/simple React components.
- **CWRU Food Finder (blog, demo, code)**: Website using fine-tuned OpenAI model w/Google Cloud Run & MongoDB automated workflow to scrape on-campus events & categorize by free food. Includes MUI/React/NextJS frontend. Uses puppeteer to scrape additional event details. 2023 1st place university hackathon project.

Skills

- **Languages**: Fluent English & Ancient Latin learner. Python, Typescript, Javascript, Java, Bash, Nix, HTML & CSS, Markdown & LaTeX, Typst, Lua, Awk, learning Verilog, learning C/C++
- **Tools**: Nix & NixOS, Linux, Docker, NextJS & NextAuth, Numpy & Pandas, Prisma, Django, PyQt & PyQtGraph, Asyncio, Unified/Remark & Rehype, Git, S3, AWS, Fusion 360, Janus Gateway & WebRTC, React/React Native, Tailwind, Mui, Adobe Illustrator & Photoshop, GSuit & MS Office, Vim, JQ, CLI tooling
- **Miscellaneous**: Object-oriented, functional, Web development, 110+ WPM Typing, CPR Certified (2022)
- **Qualities**: Fast learner, Creative thinker, Debugging, Efficient, Good Communicator, Reliable & timely