Wolf Mermelstein

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

Education

Case Western Reserve UniversityCleveland, OH B.S. Computer Science; 4.00 GPAAnticipated 2027**Relevant courses:** Data Structures, Logic Design, Persuasion, Linux Tools/Scripting**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

- **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 Postgresql, Prisma ORM, and AWS S3 to store, fetch, and render posts. Wrote backup and migration scripts in TS. Created special markdown parsing system with custom Rehype plugins. Developed Obsidian plugin to sync and edit blogs from my vault.
  - **NixOS & Nix Builds**: Configured NixOS desktop system from scratch with Hyprland and extensive customization. Learned the Nix language, and learned how to package binaries and apps of various languages with Nix. Worked to package Android emulators with Nix and stream them with WebRDP.
  - **Generated Vocab Cards**: Created Python scripts merge data obtained through Webster, OpenAI, and other APIs into elegant, contained English Vocab flashcards. Created system to generate vector art utilizing templated SVGs and Chrome Devtools Protocol. Integrated generation system into Django API.
- **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, simplifying and enhancing the 'robo-kit' creation process. Educated employees on how to utilize the materials.
  - **Curriculum Design**: 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 with thorough, interactive lessons for 6-9 year olds.
  - **Teaching**: Lead-taught virtual robot-building summer classes to groups of 5-12 8-13 year olds. Co-taught in person classes and robot birthdays. Helped run extended day sessions.
- **Minecraft Name Autoclaiming** Online self-run business

  Co-founder; Solo Software Engineer; Sales Manager *June 2021 - July 2022*

  - **Systems Design**: Developed software in Python to autoclaim desirable Minecraft usernames at the moment of release, beating competitors by milliseconds. Automated server deployment and account distribution for 50-80 accounts.
  - **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.
  - **Software Engineer**: Implemented a live automatic name queue, contrived server-setup Python scripts, coded AioHTTP Swagger-Spec'ed management server, and created interactive Discord bots. Utilized Vultr's API for automated server deployment and AsyncSSH for auth & SFTP.

Projects

- **DNA Nanotube Designer Tool ("NATuG")**: DNA nanotechnology academic research project wherein I developed an interactive Python based desktop application with the QT framework aimed to streamline the geometrically constrained DNA nanotube design process. Engaged in weekly collaborative debugging & planning meetings with a bionanotechnologist, implementing and designing various important algorithms such as one to compute DNA helix strand switch behavior on junction clicks. Designed custom csv-zip package file format. Carefully architected UI to be both intuitive and accessible, but also powerful. Currently working on scholarly paper related to project. For more on NATuG, see my website post, or the Github.
- **Hydroponic Closet Basil Farm**: Renovated closet and installed hydroponic equipment (upcycled storage containers, powerful grow lights, commercial air compressors, etc.). Harvested and pruned 18 large hydroponic large-leaf basil plants weekly. Maintained 100 gallons of aerated nutrient water. Formulated recipes for and produced bulk pesto.

Skills

- **Languages**: Fluent English & Ancient Latin learner. Python, Typescript, Javascript, Java, HTML & CSS, Markdown & LaTeX, learning Verilog, learning awk
- **Tools**: React, Tailwind, Docker, NextJS & NextAuth, Numpy & Pandas, Prisma, Django, PyQt & PyQtGraph, Asyncio, Remark & Rehype, Git Version Control, AWS S3, CockroachDB, Adobe Illustrator & Photoshop, GSuit & Microsoft Office, Linux, Vim
- **Miscellaneous**: Object-oriented, Web development, Backend, REST, 100+ WPM Typing, CPR Certified (2022)
- **Qualities**: Fast learner, Creative thinker, Good debugger, Efficient Communicator, Reliable and timely