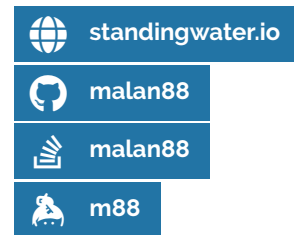


# MICHAEL SENDER

Software Developer



## WHO I AM

I prefer Python, but I wear many hats. I have written code in, Python, vanilla JavaScript, ReactJS, and C#. I have dabbled in C, Scheme, C++, Go, and Bash. I have built static sites in GatsbyJS, interfaces in WPF, and web scrapers and bots in Python. I even built an arduino-based PID controller for a popcorn popper to roast my own coffee. But by far most of my time has been spent developing a single web technology, consisting of  $\approx 14$  KLOC in Python, Flask, and SQLAlchemy, in the pursuit of my obsession with literature: [anno.wiki](#).

All of this should demonstrate that I am a full time learner. I have spent enough time learning new things that I have full confidence in my ability to learn new things. But most of all, I am a thoughtful programmer. I think twice about abstraction or hard coding, I think about tech debt and the way users will interact with a feature. When I'm writing code in the present, I'm thinking about the future.

## EXPERIENCE

2021 – Current

### HtmMbs LLC

Software Developer

[Python](#) — [Flask](#) — [SQLAlchemy](#) — [PostgreSQL](#) — [jQuery](#) — [ReactJS](#) — [Odoo](#)

I built a sophisticated perpetual inventory system for the company to prioritize inventory checks by warehouse workers. Priority was calculated from around six different datapoints (e.g., cost of item, time since last counted, stock quantity, turnover, etc.) with a simple multinomial. The system provided resources for easily allocating and deallocating locations for inventories using the XMLRPC API for their highly customized and legacy Odoo system.

I also deeply improved the Arduino code they used for led location indicators to help guide warehouse workers to inventories they were looking for, reducing the code from  $\approx 450$  lines to  $\approx 50$ .

In addition, I started a company wiki for general documentation, a GitHub organization for version control, a 1Password repository for security and helped them improve their backup systems.

2020 – 2021

### Healthy Brands, LLC

Contract Developer

[Python](#) — [BeautifulSoup4](#) — [Django](#) — [SQLAlchemy](#) — [PostgreSQL](#) — [Arch Linux](#)

I worked on several projects for this company.

- I built and deployed a multithreaded scraper and alert system for notifying the company of BuyBox loss events on Amazon using a variety of data sources
- I launched, developed, and maintained [ask.fiteyes.com](#), a Django-based question and answer forum built upon Biostar. Contributed several bug fixes back upstream.
- I prepared and maintained several VPS servers, including one in Arch Linux
- I did general systems programming, including Systemd Units and Timers for varied infrastructure

2020

### Euler Sciences LLC Website

Contract

[Photoshop](#) — [GatsbyJS](#) — [ReactJS](#) — [GraphQL](#)

This was a very short contract on a hand shake agreement to design a contractor collective's main website. The company specializes in scientific and mathematical programming with occasional forays into more conventional programming paradigms.

To play up the company's specialization in mathematics, I used a feature image of Leonhard Euler and his namesake identity,  $e^{i\pi} + 1 = 0$ , as a motif.

2020 – 2021	<b>Laser System Interface</b> <b>Contract</b> C# — Windows Presentation Foundation — SQLite Designing Euler's website demonstrated to them that I am a very capable interface developer, so they contracted me to help complete a tablet user interface for a contract they'd taken on for a laser system meant to treat skin conditions. It was a bit of a head first moment for me, as it was in a language I'd never written, C#, a framework I'd never heard of, WPF, a programming domain I'd never worked in, tablet GUIs, and required the use of an IDE I'd never opened, Visual Studio. Within a matter of weeks I was writing View Models that have since gone into production around the world. I also helped design the database.
2019 – Current	<b>Intertextual Canon Cloud 2</b> <b>Flask/React App</b> Python — Flask — SQLAlchemy — Elasticsearch — PostgreSQL — Docker — ReactJS This is the second iteration of the ICC (see below), with improved data architecture and a single-page application frontend based in React. Using Elasticsearch to store texts and PostgreSQL to store annotations and general application data allows for faster incremental searching. I also wrote more sophisticated text processors for breaking text into 100k byte chunks and annotating stylistic elements, while stripping all styling from the raw text.
2017 – 2020	<b>Glendale Painting Corporation</b> <b>Office Manager, Technology Director</b> Python — GatsbyJS — ReactJS — GraphQL — Joomla — Quickbooks — Excel I did not anticipate a technology career, so my start was as an Office Manager working with Quickbooks and general company management. Soon after I began working on ICC I developed a love for technology and it began to permeate the company. I designed their current website based on a Joomla template, then I redesigned it using GatsbyJS. I also cleaned up a lot of the company's books using Python and macros, and helped build a maintainable static site for a yearly golf tournament the company uses for networking and marketing.
2017 – 2019	<b>Intertextual Canon Cloud (anno.wiki)</b> <b>Flask App</b> Python — Flask — SQLAlchemy — MariaDB — Elasticsearch — pytest — Heroku The ICC is a web application designed to allow for collaboratively building an exhaustive and definitive repository of annotated literature. I designed, developed, deployed, and continue to maintain the project solo, managing occasionally to rope in some programmer friends for help with various features. It consists of $\approx 14$ KLOC and $\approx 800k$ lines of code churn (according to GitHub). The backend uses Flask/SQLAlchemy. The frontend uses Jinja2, Sass, and VanillaJS. I also had to write several ETL data pipelines for processing Project Gutenberg texts. It is deployed via Heroku. I learned the entire web application life cycle on this project, and it continues to teach me. It is currently maintained at <a href="https://anno.wiki">https://anno.wiki</a> .

## EDUCATION

2008 – 2010	<b>Philosophy and Classics</b> <b>Florida State University</b> Focused on Ancient Philosophy, particularly Aristotle, Philosophy of Mind, and Symbolic Logic. Also studied Ancient Greek and Latin. President of Philosophy Club (2010)
2007 – 2008	<b>Philosophy</b> <b>University of South Florida</b> General introductory classes, Social Philosophy, Critical Thinking

## LANGUAGES

**English** — native  
**French** — fluent  
**Spanish** — rudimentary

## FREE TIME

I am a lifelong learner, constantly finding new things to obsess over. In the last three years I've learned the intricacies of wine and cheese, learned to roast coffee and brew top-tier espresso, become a sophisticated mixologist, and learned to speak French.