Atilio Barreda II

Software Engineer | Data Scientist | Educator

Brooklyn, NY | data.atil.io | github.com/lolusername

SKILLS

Languages: Python, JavaScript, TypeScript, SQL
Data / Visualization: Pandas, NumPy, Matplotlib, D3.js, OCR/text extraction, entity/topic modeling workflows
Backend / Databases: FastAPI, Django REST, Node.js, Express, PostgreSQL, MongoDB, Elasticsearch, Supabase
Frontend / Cloud: Vue, Nuxt, Svelte, React, Next, HTML/CSS, Tailwind, Vite, Docker, AWS (EC2, ECS, S3, Lambda), Nginx, Git
Other: Spanish, Adobe Creative Cloud (Photoshop, InDesign, Premiere Pro, Illustrator)

PROFESSIONAL EXPERIENCE

Adjunct Lecturer, Computer Systems Technology Dept., New York City College of Technology (CUNY) Aug 2020 - Present

- Developed and taught 5 college-level Computer Systems courses to 100+ students, including Intro Data Science, Machine Learning Fundamentals, Database Administration, Intro to Computing, and Intro to NoSQL.
- Designed applied curricula covering SQL query optimization, Python/Pandas pipelines, database design, machine learning concepts, and translating raw datasets into actionable findings.

Freelance Software Engineer, Studio Miski Jan 2020 - Present

- Built and launched text analysis software for nonprofits and academics, transforming 125K+ email PDFs into a searchable research platform and cutting document retrieval from ~10 minutes to under 1 minute.
- Delivered OCR/text extraction, Elasticsearch search, annotations, and D3 topic/entity visualizations so researchers could move from corpus-level patterns to source documents.
- Deployed a reproducible production stack on AWS EC2 with FastAPI, Nuxt/Vue, Docker, and Nginx; delivered similar data-processing and visualization tools for nonprofit and academic teams.

Senior Software Engineer, Global Healthcare Exchange Jun 2023 - Jun 2024

- Shipped interactive healthcare analytics dashboards with Vue.js and Django REST APIs, enabling stakeholders to explore operational metrics in real time.
- Partnered with design, product, and client stakeholders to prototype dashboards in 2-4 days, accelerating feedback and reducing time spent on unvalidated concepts.

Frontend Engineer, Calvin Klein Jun 2019 - Jan 2020

- Automated image-asset creation pipelines with JavaScript and Adobe InDesign scripting, reducing per-campaign production effort by 20% and saving 12 hours per campaign.

Frontend Engineer, Turbonomic Jul 2017 - Jun 2019

- Implemented a Git-based WordPress workflow on AWS, replacing direct FTP with versioned rollbacks and cutting release cycles from hours to ~15 minutes.

User Interface Engineer, Sentient Jet Jun 2015 - Jul 2017

- Built internal flight-operations dashboards for scheduled vs. flown flights, empty legs, and revenue, consolidating operational metrics previously spread across third-party tools.

Freelance Web Developer & Designer 2012 - Jun 2015

- Designed and built static websites and WordPress themes for entrepreneurs and artists, combining front-end implementation with design, content, and client communication.

EDUCATION

MS, Data Analysis and Visualization, CUNY Graduate Center (2021-2025)
BA, Modern Culture and Media (Literary Theory & Digital Media Production), Brown University (2008-2012)

PUBLICATION

Barreda II et al., "Community-Driven Data Science Practices," La Matematica (forthcoming).