Owen Kobasz

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My work blends critical thinking skills with technical proficiency, building applications that integrate AI and machine learning. I thrive in teams that value communication, mission, and thoughtful design as much as technical rigor. I bring a humanities-informed, analytical perspective to software engineering, shaped by years of managing projects.

EDUCATION

University of Pennsylvania: School of Engineering 2023 – 2025 | Philadelphia, PA
Master of Computer and Information Technology – Computer Science
Selected Coursework: Artificial Intelligence, Database and Info Sys., Natural Language Processing.

St. John's College 2014 – 2018 | Santa Fe, NM
Bachelor of Arts
Photography Club, Founder & President, Student Coffee Shop Manager

TECHNICAL SKILLS

Languages: Python, Java, SQL, C/C++, JavaScript, TypeScript, HTML/CSS, LaTeX
Frameworks: React, Node.js, Django, Flask, WordPress, Material UI, Tailwind CSS, PostgreSQL
Developer Tools: Git/Github, Docker, DBeaver, JetBrains, VS Code, Linux
Libraries: Pandas, NumPy, Matplotlib, Scikit-learn, PyTorch, Seaborn, Plotly, PySpark

SELECTED PROJECTS

Cyclone: Bike Route Generator | *React, Node.js, SQLite, OSMnx, Leaflet* 2025
- Full-stack web app using AI to generate custom cycling routes.
- React/Vite front end (Tailwind, React-Leaflet) for user accounts, ride preferences, & exporting GPX files.
- Backend integrates GPT-4i for waypoint generation and Valhalla for route assembly.

Turbo: Auto Market Insights | *React, Node.js, PostgreSQL, AWS, Python* 2025
- Full-stack web application designed to help consumers and dealers on their car buying journey.
- Developed with a React front end and Node.js backend with PostgreSQL using DevOps, hosted on AWS.
- Scraped data from Craigslist to power search, filtering, value comparisons, and regional market insights.

Tweet Analyzer | *Java, Git* 2024
- Created an N-tier architecture program for importing and analyzing tweets from CSV and JSON files.
- Executed data analysis to identify and report the number of flu-related tweets per state.

EXPERIENCE

Graduate Teaching Assistant | *University of Pennsylvania* 2025 – Present | Philadelphia, PA
- Instruct, grade, and mentor students in advanced topics including graph algorithms, DP, & NP-completeness.

Editor | *Photo-Eye* 2018 – 2025 | Santa Fe, NM
- Oversaw content and platform updates for the largest specialty photobook store.
- Maintained and enhanced a React-based front end within an MVC architecture.
- Grew social media audience from 18k to 65k+ while launching targeted campaigns & integrating e-commerce.

Gallery Director | *PhotoLounge* 2021 – 2023 | Philadelphia, PA
- Founded and directed a new gallery program, overseeing all operations, curation, and strategic planning.
- Project management for 20+ exhibitions including: curation, marketing, install, and community engagement.

VOLUNTEER WORK

Neighborhood Bike Works | *Mechanic* 2022 – Present | Philadelphia, PA
- Assist community members in repairing and maintaining their bikes, supporting affordable transport access.

Philly Bike Action | *Tech Team* 2023 – Present | Philadelphia, PA
- Build and maintain web tools in Django to support bike advocacy and ride coordination.

FIFE Academy | *Python Instructor* 2024 – 2025 | Philadelphia, PA
- Developed and delivered a Python curriculum, culminating in student-led programming projects.