Owen Kobasz

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EDUCATION

University of Pennsylvania, School of Engineering Philadelphia, PA
Master of Science – Dual Degree: Computer Science and Artificial Intelligence *2023 – 2025*
St. John's College Santa Fe, NM
Bachelor of Arts *2014 – 2018*

EXPERIENCE

Graduate Teaching Assistant 2025 – Present
University of Pennsylvania *Philadelphia, PA*
- Led recitations, office hours, and grading for a graduate algorithms course serving 300+ students
- Mentored students on graph algorithms, dynamic programming, and NP-completeness, emphasizing correctness and complexity analysis
- Reviewed and debugged student implementations, evaluating runtime tradeoffs and edge-case handling

Editor 2018 – 2025
Photo-Eye *Santa Fe, NM*
- Led editorial content production across social media, newsletters, and blog platforms, designing repeatable publishing workflows and maintaining content quality at scale
- Grew Instagram audience from 18k to 65k+ by integrating e-commerce tooling, campaign analytics, and platform-specific content pipelines, with supporting HTML/CSS site updates and light JavaScript maintenance

Gallery Director 2021 – 2023
PhotoLounge *Philadelphia, PA*
- Founded and operated a new gallery program, designing operational workflows, timelines, and decision processes under real-world resource constraints
- Planned and executed 20+ exhibitions by coordinating schedules, logistics, and stakeholders, balancing scope, deadlines, and quality

PROJECTS

Cyclone: Bike Route Generator | *React, Node.js, SQLite, OSMnx, Leaflet* 2025
- Built a full-stack web application that generates custom cycling routes by orchestrating AI-driven waypoint selection with external routing services
- Implemented a React/Vite front end using Tailwind and React-Leaflet for interactive map visualization, ride preferences, and GPX export
- Integrated GPT-4i for waypoint generation and Valhalla for route assembly, handling API coordination and route validation

Turbo: Auto Market Insights | *React, Node.js, PostgreSQL, AWS, Python* 2025
- Built a full-stack platform for analyzing vehicle listings and market pricing to support consumer and dealer decision-making
- Developed data ingestion and search pipelines using scraped Craigslist listings, normalized PostgreSQL schemas, and backend filtering logic

TECHNICAL SKILLS

Languages: Python, Java, SQL, C/C++, JavaScript, TypeScript, HTML/CSS, LaTeX
Frameworks: React, Node.js, Django, Flask, 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

VOLUNTEER WORK

Tech Team 2023 – Present
Philly Bike Action *Philadelphia, PA*
Mechanic 2022 – Present
Neighborhood Bike Works *Philadelphia, PA*