Zachary Sturman

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linkedin: **linkedin.com/in/zacharysturman** | github: **github.com/ZSturman** | blog: **zacharysturman.hashnode.dev**

Technical Skills

Programming Languages: Python, TypeScript, JavaScript, Rust, Swift
Data Engineering & Machine Learning: PyTorch, Pandas, NumPy, Scikit-learn, TensorFlo, Matplotlib, Seaborn
Testing & Analytics: Pytest, Postman, Jupyter Notebook, TensorBoard, Cypress, React Testing Library
Cloud, DevOps & Tools: AWS (Lambda, EC2, S3, CloudFront, RDS), Firebase, Docker, CI/CD, Git, GitHub Actions, Redis
Frontend, UI & UX Development: React, Next.js, Redux, Tailwind, Figma, Sketch, Adobe Illustrator, Photoshop

Data Engineer (Contract)

TowardBetter.me - Remote
October 2024 – February 2025

- Designed and implemented data architecture to support app development, enabling efficient storage and retrieval of user generated content.
- Built and optimized API endpoints using FastAPI with Firebase for seamless user authentication and database operations.
- Leveraged XState to build state-driven pipeline processing workflows, ensuring robust and maintainable data flows.
- Developed and integrated an LLM-powered chat assistant tailored for free-tier users, enhancing user engagement and accessibility.
- Integrated third-party tools such as Twilio (communications), Stripe (payments), and Zoom (virtual meetings) to expand app functionality.

Full Stack Software Engineer

Lost & Hound - University of Melbourne, Australia
February 2024 - October 2024

- Built a Python-based data pipeline to process images using OpenCV and Scikit-learn for computer vision tasks.
- Implemented a PostgreSQL database schema to handle large-scale image data with optimized queries.
- Delivered end-to-end ML solutions by training and deploying models for lost pet photo matching.
- Conducted training to empower non-profit teams to manage and maintain applications independently.
- Improved build and deployment processes using GitHub Actions

Web Engineer

theKnifeGrinder – Anchorage, Alaska
August 20202 - November 2023

- Modernized website infrastructure using React and Next.js, enhancing performance and user experience.
- Developed RESTful APIs using FastAPI for efficient data delivery to frontend applications.
- Applied Pandas and NumPy for in-depth data cleaning and transformation, supporting advanced business analytics.

Business Intelligence Engineer

Ameristar Casino – Denver, CO
April 2017 – October 2023

- Conducted advanced data analysis with Pandas and Matplotlib, generating actionable business insights.
- Created machine learning models in Python for customer segmentation and trend prediction.
- Built scalable backend systems to support high-frequency data ingestion and real-time analytics.

Education & Certifications

- Bachelor of Science in Media Communication – Full Sail University (2014)
- Google Certified Data Analyst (2022)
- AWS Certified Cloud Practitioner (2023)

Additional Qualifications

- **Scheduling Pipeline Application:** Developed a scheduling app using Python and Flask, showcasing the ability to design and implement a clear and efficient pipeline of processes for production scheduling: github.com/ZSturman/Google-Sheets-Production-Schedule-Desktop-App
- **Data Labeling & Analysis Tool:** Created a desktop application using Python, React, OpenCV, and machine learning to assist with dietary tracking and data analysis. This project demonstrates proficiency in applying computer vision techniques and ML for practical use cases: github.com/ZSturman/Hows-My-Eating