

Peter Simone

plssimone@gmail.com petersimone.xyz linkedin.com/in/psim1 github.com/petersim1

Results-oriented data scientist and developer with 7 years of experience creating innovative solutions to complex problems. Proven track record of building, leading product lifecycles, conducting research, exploratory analysis, working cross-functionally, and effectively communicating results in order to drive meaningful impact.

EXPERIENCE

Principal Data Scientist & Full-stack Developer

2022 – Present

Variable

New York, NY - Hybrid

- Led the data science and full stack engineering initiatives of an innovation studio in partnership with a Fortune 100 company, owning the technical lifecycle and ideation across the areas of AI, web3, and financial wellness
- Developed MVP's aligned with business use cases and released these to internal teams and hundreds of beta users
- Conducted exploratory research, optimized study designs using machine learning principles, analyzed results, and communicated briefs in collaboration with external partners, which amounted to published research and key driver insights
- Collaborated with designers and web3 engineers to lead the development of an internal web3 onboarding application, leading to hundreds of employees being onboarded into the ecosystem
- Orchestrated a full stack Generative AI product, building out RAG methods, function calling, and a custom REST API with webhooks, to cut hours of manual data entry processes from video conversations down to seconds. Single-handedly built a POC integrated with 3rd party technologies, and amassed buy-in from the parent company to continue leading the development and eventual handoff of this product
- Provided AI and engineering expertise to help strategize long-term AI initiatives and roadmaps, helped write research briefs and ideate POC's for these complex topics such as Federated Learning and Responsible AI, led the build processes, and effectively communicated findings with stakeholders

Freelancing

2023 - Present

- Consulted on and developed the Service Worker component of a mobile product widely used in the Healthcare space, in an effort to convert a native mobile app into a Progressive Web App
- Designed and built the entire service worker lifecycle, created informational videos and demos for the team, and handed off the work for a beta release
- Conducted ad-hoc development, scripting, and analytical tasks for clients, receiving great reviews and feedback

Manager, Risk Management - Digital Analytics

2021 - 2022

American Express

New York, NY - Hybrid

- Built out digital capabilities, conducted exploratory analysis of clickstream data and client data, and consulted on the strategy of user identification
- Utilized Hive, pyspark, and python to streamline the querying of site interaction data and enable key driver analysis, as well as trained + evaluated gradient boosted models for user classification, improving site personalization and upsell capabilities for the company
- Communicated with third-party companies and internal teams to assess the feasibility of integrating various data sources, knowledge graphs, and workflows that could help drive ROI growth and unlock data value

Analyst - Software Development & Analysis

2017 - 2019

Personal Genome Diagnostics

Baltimore, MD

- Provided early analytical and bioinformatics support to develop a genomics product for cancer diagnostics, including helping optimize biocomputational methods such as random forest and regression models
- Streamlined statistical analyses and data visualizations of NextGen Sequencing outputs using python and R, drastically reducing time to complete analyses and presentations team-wide
- Led orthogonal study implementation and analyses in collaboration with external labs, producing findings that amounted to research publications
- Presented quantitative insights weekly to company stakeholders to influence product decisions, largely helping guide the product to an FDA approval

PERSONAL PROJECTS

Bevor | *web3, smart contracts, dao, nextjs, wagmi*

links → marketing page, live app, os org

- Co-led the ideation, engineering, and business development of a decentralized auditing protocol in the web3 ecosystem, positioned to fix several painpoints in the space
- With plans to expand this out much more thoroughly, I built out a proof of concept full-stack application to interact with our smart contracts and efficiently fetch blockchain data and manage users' wallet interactions
- Led efficient DAO design practices, communication with external partners, market research, grant proposals, and presentations for co-marketing

Blackjack Reinforcement Learning | *python, pytorch, nextjs, starlette, websockets, docker, onnx*

links → live app, training repo, websocket repo, frontend repo

- The goal of this project was to explore blackjack optimal strategy, and build an interactive application to allow users to learn the game, evaluate themselves, and observe the value of moves
- Built extensible python modules to play the game of blackjack, trained a Q-learning and Deep Q Learning agents to learn optimal strategies, coupled with thorough analyses of gameplay and inference
- Deployed a custom websocket server and NextJS application, with a deep learning model deployed via onnx runtime, to allow users to interactively play and learn optimal moves

Strava Viz | *nextjs, strava api, oauth, indexedDB, jwt, rest, d3js*

links → live app, repo

- The goal of this project was to allow active Strava users to observe their historical routes and easily visualize where they bike/run most frequently
- Engineered a responsive application using NextJS, REST API, JWT, and Browser Storage API's that allows users to oauth with their Strava account and observe interactive visualizations of their route overlays

EDUCATION

New York University

M.S. Data Science

New York, NY

2021

University of Maryland

B.S. Bioengineering

College Park, MD

2017

TECHNICAL SKILLS

Languages: python, javascript, typescript, HTML/CSS, SQL, hiveQL

Frameworks/Tools: NextJS, ReactJS, NodeJS, Express, Starlette, FastAPI, Flask, pytorch, pyspark, Docker, Git, PWA

Databases/API: MongoDB, Firestore, Postgres, MySQL, Pinecone, chromaDB, REST, GraphQL