



# ANSH NAGWEKAR

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## Education

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University of Pennsylvania, Philadelphia, PA

Aug 2021 - Present

Candidate for B.S.E. in Computer Science (NETS), Minor in Mathematics & Statistics

GPA: 3.95/4

**Relevant Coursework:** Data Structures and Algorithms (TA), Network Theory (TA), Scalable and Cloud Computing, Optimization Theory, Foundations of Data Science, Advanced Algorithms, Machine Learning Theory (G), Ethical Algorithms (G), Applied Probability Models in Marketing (G). \*G = Graduate Level, \*TA = Teaching Assistant

## Professional Experience

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Tesla, Software Engineer Intern

May 2023 - Present

- Tech Stack: Python, MySQL, Redis, Docker, Jenkins, Kubernetes, Splunk, Grafana, Elasticsearch API.
- Worked under "Applications Engineering" team to build and monitor services that handle pricing and configuration of Tesla products in 42+ global markets. Collaborated with DevOps team to conduct performance testing.
- Reduced response times for production APIs by ~40% by implementing async tasks and robust error handling.
- Integrated pricing contexts for Tesla Insurance into used-car valuation service and wrote scalable algorithms to extract cheapest vehicle comps to reduce fees to third-party vendors (estimated annual impact of \$6M).

Penn Labs, Software Backend Engineer

Feb 2022 – Present

- Tech Stack: Python Django, Docker, PostgreSQL, GitHub Actions.
- Engineer RESTful APIs to optimize query performance for software products used by 12,000+ Penn students.
- Co-manage 20,000+ LoC codebase and interface with front-end engineers to handle exceptions and create resilient endpoints. Service the production pipeline in order to ensure continuous integration and deployment.
- Implemented schedule-sharing feature on Penn Course Plan which involved significant backend design changes.

VO2 Fans, Founding Software Engineer

May 2022 – Dec 2022

- Tech Stack: MERN (MongoDB, Express.js, React.js, Node.js), AWS, ThirdWeb SDK, Moralis SDK.
- Harnessed web3 technology and "engage-to-earn" model to improve sports fan engagement by enabling fans to become stakeholders in their favorite athletes (raised \$350K in pre-seed, fielded seed offers at \$10M valuation).
- Built and maintained backend stack and solve software issues relating to securing APIs, handling crypto transactions, and developing reward mechanisms for main app (100+ active users, 5000+ monthly visits).
- Attended 2022 Techstars Sports Accelerator and learned about the fundamentals of entrepreneurship, scaling a pre-seed startup, and pitching to venture capital firms and investors while networking with Techstars alumni.

## Projects and Research Experience

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Open-Source Development Research for Open Core Ventures

Jul 2022 – Present

- Performed due diligence on 70+ open-source software projects by conducting a technical analysis of the codebase, researching business models of commercial competitors, and aggregating contribution analytics.
- Collaborated with firm partners (including Sid Sijbrandij, CEO of GitLab) to inform investment decisions of \$2M.

Wharton Venture Initiation Program Fellowship

October 2021 - January 2022

- Shipped software for Sentinel Cloud, a healthcare startup aiming to address a \$64M TAM in EMR (Electronic Medical Records) systems by optimizing the physician workflow and introducing web-based record systems.
- Created algorithms (Python, SQL, Google Cloud Platform) to categorize doctor notes and built APIs to extract useful insights on patients (e.g., past illness, family history) to help physicians make recommendations.

Natural Language Processing Research for Newristics LLC

Jun 2020 – Jul 2021

- Researched applied NLP for various internal projects for behavioral economics-based marketing firm.
- Leveraged ML techniques (regression, deep learning, ensemble learning) to identify 40+ applied heuristics in marketing messages. Achieved accuracy of 85%+ over all models (currently used in production).
- Compiled comprehensive research report on NLG text style transfer using large language models (LLMs) to assist the firm in determining necessary software to automate Aigile (industry-leading message optimization service).

## Skills and Interests

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**Languages:** Java, Python (pandas, nltk, sklearn, torch, tensorflow), JavaScript, C, OCaml, Bash (Linux), SQL

**Research Interests:** artificial intelligence, natural language processing, network theory, web3/blockchain development

**Activities & Societies:** Delta Sigma Pi Professional Fraternity, Penn Social Entrepreneurship Movement, Penn Quant Trading Group, Susquehanna International Group (SIG) Discovery Day 2023, Greylock Techfair 2023

**Hobbies:** tricking (flips), educational outreach, fusion dance, San Francisco 49ers, chocolate milk, game theory, poker