

Shahgol Sabeti

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PROFESSIONAL SUMMARY

Computer Science graduate from NYU Tandon School of Engineering with hands-on experience building backend systems, REST APIs, automated data pipelines, and full-stack applications. Developed Dockerized, cloud-backed platforms using Python, C++, Django REST, React, and Firebase, with experience integrating AI APIs and using AI-assisted development tools.

EDUCATION

New York University, Tandon School of Engineering

Brooklyn, NY

Bachelor of Science in Computer Science, Minors in Mathematics and Finance

Sep 2022 – May 2026

Relevant Coursework: Design & Analysis of Algorithms, Data Structures & Algorithms, Operating Systems, Software Engineering, Parallel Computing, Computer Architecture, Databases, Object Oriented Programming, Artificial Intelligence, Machine Learning, Computer Vision, Data Analysis, Linear Algebra & Differential Equations, Discrete Math, Human Computer Interaction, Corporate Finance, Economic Foundations of Finance, Investment Banking & Private Equity, Creating & Understanding Financial Statements, Financial Management

EXPERIENCE

Computer Science Teaching Assistant

Sep 2025 – May 2026

NYU Tandon School of Engineering

Brooklyn, NY

- Assisted in teaching Introduction to Programming and Problem Solving courses by supporting classroom instruction and reinforcing key computer science concepts.
- Conducted weekly office hours to provide one-on-one guidance to 20+ students, and clarify coding concepts.
- Collaborated with faculty to prepare instructional materials, assignments, and foundational coding exercises and skills.
- Led lab sessions for 60+ students, guiding programming principles and hands-on debugging.
- Held weekly office hours and collaborated with faculty to develop instructional materials and coding exercises.

Software and Data Engineering Intern

May 2024 – Aug 2025

NYC DOT ITS Engineering

- Analyzed Transit Signal Priority (TSP) timesheets and spatial data along NYC bus routes using ArcGIS, Google Earth Pro, and MTA's API to optimize traffic flow and reduce delays
- Built and maintained Tableau dashboards for 15 projects, covering ~1,000 intersections to standardize TSP performance monitoring.
- Unified multi-source TSP data in Excel (timesheets, APIs) into a standardized Excel-based dataset for consistent KPI tracking and analysis.
- Analyzed spatial data along NYC bus routes using ArcGIS to identify traffic flow inefficiencies.
- Created project funding strategies (scope, satisfying requirements, timelines, impact justifications) and successfully secured federal grants for TSP project expansion.
- Led collaborations with NYC MTA, NYC DOT, and JHK Engineering and developed flowcharts, project plans, and status reports to improve project workflow efficiency.

PROJECTS

New Roots

Oct 2025 – Dec 2025

Full-Stack Relocation-Matching Platform: Django REST, React, TypeScript, Firebase, Docker

- Deployed a Dockerized backend using Django REST Framework and Firebase Admin, exposing REST APIs for program ingestion, eligibility scoring, and role-based user workflows.
- Built a scalable pipeline using GitHub Actions and web scraping to discover and write program records to Firestore daily.
- Designed a multi-step application flow in React and Firebase with document storage, profile snapshots, and real-time status tracking.
- Developed an AI-powered chatbot using xAI Grok and the X API to serve country-specific cultural context, integrating the Grok API into the Django backend.
- Conducted task-based usability testing with 5 participants, identifying and prioritizing issues in onboarding, eligibility-score consistency, navigation, and user trust.

UFC Fight Outcome Prediction

Nov 2025 – Dec 2025

ML System: Python, BeautifulSoup, Scikit-learn

- Built a web scraper using Python and BeautifulSoup to extract a round-by-round dataset of ~8,500 UFC fights from ufcstats.com.
- Engineered ~150 features per fight using moving averages, ELO ratings, and composite metrics for time-series fighter attributes.

- Trained and evaluated 192 models across Logistic Regression, KNN, and Neural Networks, testing PCA, logarithmic scaling, and custom feature interactions while tuning hyperparameters.
- Achieved up to 67% accuracy on winner prediction and 90% accuracy at high confidence thresholds.

TechCompare

Jan 2024 – Apr 2024

Full stack Tech Product Comparison Web App at NYU Bootcamp

- Developed a web app using Java Spring Boot and Node.js for comparing tech products using the Best Buy API.
- Designed a responsive user interface using React and Bootstrap, ensuring a smooth user experience and reliable performance.
- Designed and integrated a MySQL DBMS for effective product and user data management and storage.
- Implemented comprehensive product search and comparison features with a RESTful API architecture using Spring Boot's RestController and RestTemplate for efficient data processing.
- Configured Spring Security to manage user authentication, secure user login, and access controls.

AWARDS & HONORS

- HackPrinceton 2025: 1st Place X and xAI Challenge - Won 1st place and \$8,000 in X/xAI credits for best implementation of xAI Grok-3 and X API (Nov 2025, Princeton University, NJ)

SKILLS

Programming Languages: Python, C++, C, SQL, CSS/HTML, intermediate: Verilog, Ruby

Systems & Backend: REST APIs, Docker, PostgreSQL/MySQL, Firebase, GitHub Actions, Git, OpenMP, MPI, CUDA

Frontend: React, TypeScript, CSS/HTML

ML: scikit-learn, pandas, NumPy, OpenCV, Neural Networks, BeautifulSoup

Finance Tools: Tableau, Microsoft Excel

Developer Tools: Claude Code, Cursor, LSEG Workspace, Microsoft Project

Tools:, Docker, Flask, Django REST, Firebase, Jupyter, MySQL, PostgreSQL, Git, BeautifulSoup, Figma, ArcGIS, Adobe Photoshop, CAD, WordPress, Adobe Illustrator, Adobe After Effects, Adobe InDesign, Arduino