

Mihir Mahale

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Education

Syracuse University

Syracuse, NY

Bachelor's of Science, Computer Science Minor in Philosophy. GPA 3.90

Fall 2025

- Invest in SU Scholar: an honor and scholarship awarded to the University's highest-achieving new students.
- Relevant Coursework CS: Intro to Artificial Intelligence, Natural Language Processing, Intro to Virtual Reality, Software Spec & Design, Systems & Network Programming, Web System Arch/Prog, Design of Operating Systems, Human Computer Interaction, Accessible Software Programming
- Relevant Coursework Philosophy: Logic, Minds and Machines, Discrete Mathematics

Study Abroad

London, England

Syracuse University London

August 2024 – December 2025

- Relevant Coursework: Automata and Computability, Algorithm Analysis, Robot Ethics

Certifications

- Data Science: Machine Learning, **HarvardX** January 2022
- WebML101: Google AI for Anyone, **Google** June 2024
- EPTC: Tech Ethics: Critical Thinking in the Age of Apps, Algorithms, and AI, **HarvardX**, September 2026
- CS50's Introduction to Cybersecurity, **HarvardX** (In Progress)

Experience

AEW Facilitator

Syracuse, NY

Position Title

August 2023 – Present

- Orchestrated and coordinated weekly Academic Excellence Workshops for Engineering students, enhancing academic performance and comprehension for over 8 participants per session each semester through systematic preparation and delivery of educational content.
- Maintained rigorous academic standards while balancing full-time studies and up to 8 hours of weekly professional commitments. Conducted 5+ interviews per year and recruited other facilitators.
- Facilitated communication and mediated scheduling conflicts, ensuring continuous support by coordinating alternative facilitation coverage for 30+ workshops per semester and maintaining transparent interactions with program leadership.
- Enhanced effective communication skills, successfully conveying complex concepts to diverse student groups, actively listening to and incorporating 20+ pieces of feedback from students, and coordinating with program leadership to ensure operational clarity and responsiveness.

PwC India

Mumbai, India

Intern

June 2024 – August 2024

- Developed and integrated web-based applications using Python and Flask, enhancing functionality and aesthetic appeal, while managing SQL databases that supported over 10,000 data entries for efficient data handling.
- Managed server accounts and collaborated with a team of 15+ IT professionals, contributing to PwC's commitment to upholding the highest standards of information security and risk mitigation.
- Enhanced technical proficiency in Python, Flask, HTML, and SQL through the creation and maintenance of multiple

applications, advancing PwC India's capabilities in IT risk management and cybersecurity measures.

- Collaborated effectively within a team environment to analyze and implement strategic risk analysis solutions, applying industry best practices to real-world scenarios and improving team efficiency by 30%.

PwC India

Mumbai, India

Intern

June 2023 – August 2023

- Built data models with relationships and calculated measures, enabling consistent KPIs across multiple reports and teams.
- Optimized report performance by simplifying measures, reducing visual load, and improving query steps—making dashboards noticeably faster to use.
- Documented dashboard definitions (metrics logic, refresh rules, ownership) to make reporting easier to maintain and hand off.

Nilkamal Limited

Mumbai, India

Intern

June 2021 – July 2021

- Analyzed complex, multi-variable datasets to uncover hidden correlations and probable drivers of performance, translating raw numbers into clear, decision-ready insights.
- Detected and investigated high-impact outliers and anomalies, separating meaningful signals from noise to sharpen operational focus and reduce avoidable inefficiencies.
- Delivered data-backed assessments and actionable recommendations that streamlined workflows and ultimately boosted productivity by 31%.

Leadership & Activities

HappyLucky Entertainment

Mumbai, India

Digital Director

May 2022 – March 2026

- Orchestrated and executed innovative digital strategies for high-profile live events, leading a team of 5+, achieving over 23,000 online participants and 1,000,000+ views. Conducted thorough analytics to drive a 43% increase in viewer engagement and a 19% growth in follow-up interactions, leveraging cutting-edge digital content to significantly enhance event prominence and audience engagement.

Skills & Interests

Technical: Machine Learning, Data Visualization, Network Protocols, Web Development, App Development

Coding: Python, Java, JS, C++, C#, SQL, CSS, PHP, Swift, Flask, Haskell, Racket

Language: English, Hindi, Marathi

Projects

- SnakeSight: a group project led by me to develop an app that could identify a snake by its species, alert the app user if it is venomous, and recommend an antivenom accordingly. This app was made for people who like hiking and trekking and need immediate, appropriate help in case of a snakebite.
- Bio-Inspired Proprietary encryption algorithm:
 - *Substitution (XOR cipher)* — your secret key seeds a PRNG that generates a keystream, XORed against the UTF-8 bytes. This is your "proprietary" secret.
 - *Codon encoding (DNA-inspired)* — each byte (0–255) gets mapped to a 4-symbol base-4 "codon" using A/T/C/G, since $4^4 = 256$. This is both an encoding step *and* the camouflage layer (Batesian mimicry) — output looks like a real genomic sequence.
 - *Phyllotaxis scatter* — codons get reordered using the golden-angle spiral formula (the same math

sunflowers use to pack seeds). It's deterministic and reversible without storing a permutation table.

- *Checksum (epigenetic-style integrity marker)* — a simple checksum byte gets folded in before encoding, so corrupted/tampered gibberish is detectable on decode.
- Gold Price Prediction using Machine Learning
- Movie Recommendation System using Natural Language Processing (NLP)
- Python Automation Script (Task/Email Scheduler, Data backup and file organization tool, and web scraping)
- VR Zombie Shooting Maze Runner game