SAUMYA SHAH

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EDUCATION

National University of Singapore (NUS), Singapore

Bachelor of Computing in Computer Science (Honours)

Aug 2022 - May 2026

May 2020 - May 2022

NUS College International Scholar | Minor in Astronomy

Fountainhead School, India

International Baccalaureate Diploma Programme

- Valedictorian (2022) | IBDP Score: 44/45
- Pearson BTEC Level 3 Subsidiary Diploma in Information Technology

EXPERIENCE

Computer Vision Engineer Intern, NUS Smart Systems Institute, Singapore

Jun 2024 - Aug 2024

Developed and tested machine learning and computer vision algorithms for object and gesture detection for The
Other Me project (AR-enabled smart glasses with a context-aware AI assistant) using PyTorch, MRTK3, and
Unity.

Research Assistant, NUS School of Computing, Singapore

Dec 2023 - Dec 2024

• Conducted research on physics-informed machine learning algorithms for symbolic regression like AI Feynman under the supervision of Dr Stéphane Bressan.

Quantitative Reasoning Assistant, National University of Singapore, Singapore

Aug 2023 – Aug 2024

 Organised and developed teaching materials for sessions to assist students with quantitative reasoning and computational concepts using R and MS Excel.

Web Developer (intern), Sham Machinery Stores, Buldhana, India

Feb 2021 - Nov 2021

- Developed and maintained a dynamic inventory management platform (PHP, HTML, CSS, JS, and MySQL), helping transition from a paper-based inventory system, and reducing stock-out rates by 25 per cent.
- Presented and evaluated multiple designs as well as the final website in consultation with the client and 20
 users.

Web Developer (intern), EssTeam Design Services LLP, Surat, India

Oct 2019 - Jan 2020

- Developed a web app (PHP, HTML, CSS, JS, and MySQL) for an architect promoting green construction, allowing other architects to co-ordinate and donate excess construction materials.
- Presented and evaluated multiple designs as well as the final website in consultation with the client and 15 endusers

Developer (intern), NJ Technologies, Surat, India

Feb 2019 - Mar 2019

- Developed and maintained new features in a software product line using Java and MySQL, increasing its
 efficiency.
- Trained for and refactored financial software solutions with a team of 5 using Java.

SKILLS

- Languages & Frameworks: Rust | Python (NumPy, Pandas, Matplotlib, PyTorch, Tensorflow, Flask) |
 Javascript (React, jQuery) | Java | Ruby (Ruby on Rails) | SQL | PHP | HTML/CSS
- Software Knowledge: MATLAB | Microsoft Office Suite | Git | Postman | Radiant | Canva

PROJECTS

- **StarSnap** | An integrated React web app consisting of a multiclass classification neural network to identify constellations, an astrophotography forum, a learning tab, and a personal gallery of astronomy photos.
- DeepIron | A machine learning library with deep learning features built from scratch in Rust.
- **TeleMetrics** | A Python web app to analyse chat history, consisting of a sentiment analysis, an analytics dashboard, and a chatbot to emulate conversations built using a Seq2Seq model.
- **Machine Learning Exploration Blog** | An ongoing blog documenting a variety of investigations into machine learning architecture and algorithms and their applications in everyday life.
- HighGear | A React social forum using a REST API built on Rails.
- Sustainable Water Pod | A modular seawater desalination and rainwater harvesting system created for the Engineering Innovation Challenge 2023 organised by Science Centre Singapore.
- Impact Experience Project | A two-year team project to improve waste management standards in rural Cambodia in collaboration with local organisations.
- HouR | GUI-based interactive desktop application for employee records management optimised for CLI usage.
- Help AI | An AI-based interview helper that records conversations and gives live answers to questions.
- Curve Fitter | A Python web app to fit a variety of curves to a given dataset.

ACTIVITIES

General Secretary, NUS Astronomical Society, Singapore

Aug 2023 - Aug 2024

- Managed recruitment and administrative records, liaised with external sponsors, and organised events for the NUS Astronomical Society consisting of 500+ members.
- Led the administration of a team of 35 to organise an annual astronomy competition (AstroChallenge 2024) for 200+ students, managing registration records and liaising with external sponsors and schools.