

SAUMYA SHAH

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EDUCATION

National University of Singapore (NUS), Singapore Aug 2022 - May 2026
Bachelor of Computing in Computer Science (Honours)

- NUS College International Scholar | Minor in Astronomy

Fountainhead School, India May 2020 - May 2022

International Baccalaureate Diploma Programme

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

EXPERIENCE

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 end-users.

Developer (intern), NJ Technologies, Surat, Gujarat, 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.

Web Developer (student), Fountainhead School, Surat, India Oct 2018 - Jan 2019

- Developed and maintained a book review forum (PHP, HTML, CSS, JS, and MySQL), allowing users to rate and recommend books to others.

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.
- **Deeplron** | A machine learning library with deep learning features built from scratch in Rust.
- **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 web 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.