

## Tara Relan

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I have a Bachelor of Engineering from HKUST, majoring in Electronic Engineering with a minor in Big Data Technology. I have strong quantitative skills including programming, probability, and statistics, and signal processing, and am looking for opportunities in data science, artificial intelligence, electronic engineering, and finance.

### EDUCATION AND QUALIFICATIONS

<b>BENG IN ELECTRONIC ENGINEERING, MINOR IN BIG DATA TECHNOLOGY   HKUST, HONG KONG (HK)</b>	<b>08/2020–06/2024</b>
<ul style="list-style-type: none"><li><b>Awards</b>   HKUST Academic Admissions Scholarship (2020); Google Career Certificate Scholarship (2022); First Runner Up, Best Final Year Project (FYP) Midterm Presentation (2024); Second Runner Up, Best FYP Demonstration (2024).</li></ul>	

### EMPLOYMENT HISTORY

<b>ARTIFICIAL INTELLIGENCE ENGINEER   ASGARD.WORLD LTD. (AW), HK</b>	<b>10/2024–PRESENT</b>
<i>Asgard.World Ltd is establishing a personalized metaverse for users, curating tokens representing products and services for redemption.</i>	
<ul style="list-style-type: none"><li>Developing and deploying machine learning models and data pipelines to provide recommendations to users, optimizing algorithms for speed and accuracy while ensuring compliance with ethical standards. Collaborating with cross-functional teams to integrate AI solutions into the app, continuously improving performance through research, and evaluation.</li></ul>	
<b>ARTIFICIAL INTELLIGENCE AND COMPUTER VISION INTERN   ASGARD.WORLD LTD. (AW), HK</b>	<b>06/2023–08/2023</b>
<ul style="list-style-type: none"><li>Built a computer vision-based web scraper to extract product data from various e-commerce websites. Built the model using Python, YOLOv5, and Amazon SageMaker, and extracted data using EasyOCR.</li></ul>	
<b>PYTHON INTERN   NASCENT CONSULTANCY LTD., HK</b>	<b>12/2021–01/2022</b>
<i>Nascent Consultancy Ltd. works to connect clients with the best talent in a diverse range of industries.</i>	
<ul style="list-style-type: none"><li>Performed Continuous Integration/Continuous Development with various Application Program Interfaces. This was done as follows: used Django and developed code on Gitlab, then automated this code to deploy it on Google Cloud Run.</li></ul>	

### PROJECTS AND CODING EXPERIENCE

<b>FINAL YEAR PROJECT IN ELECTRONIC AND COMPUTER ENGINEERING (ECE)</b>	<b>09/2023–05-2024</b>
<i>Optofluidic Methods and Machine Learning Techniques for the Classification of Red Blood Cells Based on Young's Modulus.</i>	
<ul style="list-style-type: none"><li>Used optofluidic and machine learning to classify red blood cells based on cell membrane elasticity. Recorded videos of cells being stretched using an optical tweezer, then used k-means clustering and SVM in MATLAB to label and classify the data.</li></ul>	
<b>COMPUTER VISION WEB SCRAPER PROJECT</b>	<b>06/2023–08/2023</b>
<i>Computer Vision Web Scraper for E-Commerce Product Data.</i>	
<ul style="list-style-type: none"><li>Built a computer-vision based web scraper to extract product information from e-commerce websites such as price, ratings, discounts, and images using OpenCV, Python's Scrapy, Selenium, YOLOv5, PyTesseract, Pytorch, and AWS SageMaker.</li></ul>	
<b>JPMorgan CODE FOR GOOD</b>	<b>09/2022</b>
<ul style="list-style-type: none"><li>A social good software engineering hackathon to help students apply for job shadowing programs. Used JavaScript, HTML, CSS and Figma to build a prototype website which suggested opportunities and functionalities for teachers.</li></ul>	
<b>Credit Suisse INSPIRE WOMEN IN TECHNOLOGY MENTORSHIP</b>	<b>04/2022–06/2022</b>
<ul style="list-style-type: none"><li>A web development mentorship program to encourage young girls and women to pursue STEM. Used Python, Django, React.JS, JavaScript, HTML and CSS to build a prototype forum for women to talk about their experiences and promote events and news.</li></ul>	
<b>INDEPENDENT PROJECT IN COMPUTER SCIENCE</b>	<b>09/2021–12/2021</b>
<i>Assessing Whether a Country's Currency can Predict the Movement of their Respective Stock Market Index.</i>	
<ul style="list-style-type: none"><li>A finance data science project aimed to determine whether the USD/GBP exchange rate could predict the closing price of the FTSE100. Conducted multivariate analysis using Darts, then performed statistical arbitrage with pairs trading back-testing.</li></ul>	

### VOLUNTEER AND COMMUNITY SERVICE

<b>UNDERWATER ROBOT COMMUNITY ENGAGEMENT PROJECT</b>	<b>02/2023–05/2023</b>
<ul style="list-style-type: none"><li>Hosted workshops for students, including those with disabilities, to prepare for the Underwater Robot Competition.</li></ul>	
<b>SENIOR ENGINEERING PEER MENTOR</b>	<b>09/2023–06/2024</b>
<ul style="list-style-type: none"><li>Provided mentoring to first year students and assisted them in making decisions regarding course choices and major selection.</li></ul>	
<b>ECE STUDENT AMBASSADOR</b>	<b>11/2021–06/2024</b>
<ul style="list-style-type: none"><li>Promoted the department at the Engineering Information Week and University Information Day.</li></ul>	
<b>ENGINEERING STUDENT AMBASSADOR</b>	<b>10/2021–12/2022</b>
<ul style="list-style-type: none"><li>Promoted HKUST School of Engineering (SENG) in the University Information Day to prospective students.</li></ul>	
<b>HALL VII LEADERSHIP TEAM MEMBER</b>	<b>08/2021–06/2024</b>
<ul style="list-style-type: none"><li>Worked with a team of hall tutors and leadership team members to organise gatherings for the hall residents.</li></ul>	
<b>PROJECT C X COMMUNITY</b>	<b>08/2020–05/2021</b>
<ul style="list-style-type: none"><li>Participated in service activities including Mapathon, beach clean-up, and a virtual community tour of Sham Shui Po.</li></ul>	

### SKILLS

- PROGRAMMING LANGUAGES** | Python; R; SQL; C++; JavaScript; MATLAB.
- TECHNICAL TOOLS** | PyTorch; TensorFlow; OpenCV; Excel; Power Query; PowerBI; VBA; HTML; CSS; Django; React.JS; Git.
- CLOUD COMPUTING TOOLS** | PySpark; Amazon Web Services; Google Cloud Run; Gitlab; Kubernetes
- SPOKEN LANGUAGES** | English (native proficiency); Mandarin (professional working proficiency).