Sabyasachi Purkayastha

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Education

The University of Hong Kong, *Bachelor of Engineering.*	Hong Kong, SAR
	Class of 2024.

Major: Computer Science, **Minor:** *Finance,* **Focus:** *Financial Computing.*

Awards: HKU Foundation Entrance Scholarship **(Full Tuition)**.

Roles: Co-President UNICEF HKU, HKU Student Ambassador, HKU Equal Opportunity Ambassador.

Highlight Courses: DSA, Discrete Mathematics, Computer Organization, OOP & Java, Modern Technologies on World Wide Web, Artificial Intelligence: Utopia or Dystopia.

Work Experience

GrinBean Limited, *Full Stack Developer.* — *Dec 2021 – Jan 2022.*

- **Recreated** the legacy UI system using Vue and subsequently enhanced UX through redesigning the dashboard using Chart.js for dataanalytics and visualisation.
- **Seamlessly** developed data pipeline for IoT device and server using Express.
- **Contributed** to the text-based data mining and information extraction to train and modify the data driven AI model to achieve greater efficiency.

HKU Business School, *Research Assistant.* — *Nov 2021 – Jan 2022.*

- **Build a dataset of filings** from the SEC Edgar database used in the project regarding Industrial Organization and Supple Chain Risk.
- **Increased the speed of data extraction by 60%** via implementing an algorithm that recognised the type of data required and instantly provided that for the project, saving multiple hours in the process.

QuokkaHR, *Software Developer.* — *Nov 2021 – Dec 2021.*

- **Designed and developed** features using React to show attempts of team members so they can analyse their weaknesses.
- **Revamped** the project page using React to aid project managers differentiate between completed and incomplete assignments.
- **Wrote tests** for authentication, authorisation, and performed UAT to optimise the performance of the existing platform.

Highlight Projects

See more at Shoh4g.github.io

EXIT-Finder, a mobile app *for the visually impaired community to help navigate their way in the MTR station.*

- **Designed** the front-end of the app using React Native Paper to enhance interactivity and optimised code base for greater efficiency.
- **Implemented** React Native async storage and expo speech to further make the app user friendly for the visually impaired.
- **Collaborated** with my team to implement an algorithm to traverse a map of an MTR Exits to find the shortest path using graph representation and concepts such as Breath-First Search, Dijkstra's algorithm, and A-Star Search. View the project.

COVID-19 Stats Portal, *a platform showing real time Covid-19 statistics across the globe using graphs and maps.*

- **Created** using the open API disease.sh and made use of advanced React concepts such as React-leaflet.
- **Revamped** the platform using Chart.js and Material UI to enhance interactivity. View the project..

Crypto Verse, *A fully responsive and functional cryptocurrency tracker app.*

- **Developed** using React and instrumented advanced concepts such as React hooks, Material UI and Chart.js
- **Integrated** Context API to manage the state of the app and Coin Gecko API for the relevant data. View the project.

Sort-It, *A Sorting Visualiser.*

- **Demonstrated** with the aid of visualisation, how different Sorting Algorithms work behind the scenes. *View the project.*

Notable Awards and Certifications

HKU Foundation Scholarship, *Full Tuition.*

Scholarship covering Full Tuition for the entire study period.

HKU 3rd Engineering Inno-Show 2020, *Runner - Up.*

Developed an interactive game called Play2Study that uses gamification and is targeted towards HKDSE candidates. Click here to learn more.

JP Morgan Chase, *Finance for Non-Finance program.*

Selected among 45 individuals from APAC region to complete a 2-week Finance training program under the guidance of JP Morgan associates.

Finance Accelerator Simulation 2022, AmplifyMe in partnership with Morgan Stanley.

Ranked 2nd in the entire competition, plus developed a deeper understanding of the intricacies between the buy-side and the sell side.

GOLDMAN SACHS, *Engineering Virtual program.*

Used Kali Linux and Hash cat to crack a leaked password database which was using Secure Hash algorithm (SHA) and Message Digest (MD5).

JP MORGAN CHASE and CO, *Software Engineering Virtual Experience.*

Used React to create an interface with a stock price data feed and displayed data visually to traders.

Edexcel Higher Achiever's Award, *Top 113 out of ~230,000 Students Nationwide.*

For outstanding academic achievement in A' Level Examinations **(4 A*)** and IGCSEs Examinations **(7A*)**.

Skills

Core:	Python, JavaScript, Java, C/C++, Shell, Linux.
Skills:	HTML5, CSS3, jQuery, React, React Native, Vue, Chart.js | Node.js & Express | MongoDB.