Sonal Chandra

A602, Postgraduate Hall 4, The Chinese University of Hong Kong, Sha Tin, Hong Kong

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SUMMARY

- Full-stack web developer with a genuine interest in data science and quantitative analysis.
- Independent Learner with the enthusiasm to evolve with the technical landscape.

EDUCATION

August 2021 – Present	**The Chinese University of Hong Kong** **Master of Philosophy in Economics** CGPA: 3.72/4 | Expected Graduation Date: July 2023
Sep 2017 – June 2021	**Lingnan University, Hong Kong** **Bachelor of Social Sciences (Hons) - Major in Economics** *CGPA: 3.94/4*
August 2019 - May 2020	**Study Abroad: Davidson College, United States** Focus on Mathematics and Econometrics CGPA: 3.925/4

AWARDS

November 2021	**President's Award,** Lingnan University
March 2021	**Most Distinguished Student Award,** Lingnan University
January 2021	**Postgraduate Studentship Award 2021,** The Chinese University of Hong Kong
September 2020	**Best Economics Student Award,** Lingnan University
March 2019	**President's Scholar Award 2019-20**, Lingnan University
April 2017	**Lingnan University Non-Local Student Scholarship**

SKILLS

Web development	Full-stack web development using **M**ongoDb, **E**xpress, **R**eact Js, **N**ode Js (MERN stack), PostgreSQL, HTML, CSS, and JavaScript
Data Analysis	Skilled in STATA, Microsoft Office, Python, and MATLAB

WEB DEVELOPMENT PROJECTS

May 2022 - Present	**MERN-stack Social Network (Please Sign Up and Explore)** • Developed an exciting social media app that allows users to not only create, like, comment, share, and edit multimedia posts but also follow and unfollow other users. • The program also includes real-time chat and notification features developed using Socket Io. • The user authentication system is built using JSON web tokens. Moreover, the Redux store and browser localStorage allow for state persistence. • The app has a responsive and intuitive design featuring advanced gesture-based animations developed using React Spinner and React Flip Move. • Utilised **Node Js API**, **MongoDB**, **React Js**, and **Redux** for backend infrastructure, real-time database hosting, frontend development, and global state management, respectively.
March 2020 - August 2020	**Media Watch (Please Explore)** • Topic modelling and visualisation of YouTube video titles of 46 major news shows from India between August 2016 and June 2020. • Skills developed: web scraping, data cleaning, data visualisation, machine learning, **NLP**, and web designing using **Python**.

WORKING EXPERIENCE

March 2023 - June 2023	**Software Engineer, Flyfarm Systems, Hong Kong** • Developing an in-house web application from scratch that monitors farms installed worldwide • Designing custom tools to visualise real-time farm data • Support the implementation of software with the Farm Operations team in Brisbane • Collaborate with Mechatronics Engineers to carry out movement tests and simulations on test set up hardware in the office • Utilising **React Js** and **Material UI** for front-end development and **Redux** for global state management • Utilising **Node Js** and **MongoDb** for backend development and database management, respectively
October 2022 - February 2023	**Full-Stack Web Developer, Blockpulse Limited, Hong Kong** • Design, develop, and maintain the BlockPulse web application • Collaborating with UI and UX designers • Contributing to the testing and deployment of features • Writing a Python script to scrape data from platforms like Medium and mirror.xyz • Utilising **React Js** and **Redux** for front-end development and global state management, respectively • Utilising **Node Js API** and **PostgreSQL** for backend development and database management, respectively • Building infrastructure using Linux command line to deploy the Node Js backend and PostgreSQL database on Linode VPS and Next Js frontend on Vercel
January 2021 - July 2021	**Web Developer, Teaching and Learning Centre, Lingnan University** • Successfully developed an application using Python's Flask framework that helps the coordinator manage all the administrative tasks related to the Peer Learning Facilitation program, such as user authentication, generating schedules, claim form collection and verification, sending reminder emails, and generating sessions' information files (Demo: Part 1 and Part 2) • Utilised Flask and Bootstrap for front-end development and Python for backend development • Other technologies and skills used were **SQLite3** and function-oriented programming in **Python** • The application slashed the number of manual hours needed to perform the aforementioned tasks by a tenth
November 2020 - May 2021	**Data Scientist Intern, Carnot Innovations** • Developing an algorithm for sorting and standarising raw data in order to employ in-house AI for heating and cooling system optimisation. • Building the data pipeline • Data Cleaning and Visualisation

EXTRA-CURRICULAR ACTIVITIES

May 2019 - July 2019	**Participant, Joint Humanitarian Entrepreneurship Summer Academy** • Field visits to Almaty, Kazakhstan and Bukomansimbi, Uganda, for problem identification and empathising with the local communities • Researching energy and water crises in rural Almaty and Bukomansimbi, respectively • Collaborating with partner NGOs to design affordable biogas tanks and TPU based water tanks in Almaty and Bukomansimbi, respectively