

DESMOND CHEONG

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EDUCATION

Brown University

Providence, RI, Expected Graduation May 2022

Bachelor of Science: Computer Science, GPA 4.0

Relevant Courses: Machine Learning, Data Science, Computer Vision, Probabilistic Methods in Computer Science, Logic for Systems, Theory of Computation, Intro to Computer Systems

Raffles Institution (High School)

Singapore, Nov 2015

TECHNICAL SKILLS

Technical	C++, C, Python, SQL, Javascript, HTML, CSS, MATLAB, Alloy, Common Lisp, Pyret, Dafny, Bash
Platforms	Google Cloud Platform, Spark, Keras, Apache, Linux, BSD, Photoshop, 3D printing, Raspberry Pi
Languages	English (native), Chinese (fluent)

PROJECT EXPERIENCE

Pandemic Modelling

Providence, RI, Feb 2020 - Present

Data Science Class, Brown University

- Ongoing project with teammates from Brown University to predict the spread of infectious diseases given an outbreak location and time, using a combination of human travel data and disease-specific parameters with an SIR model for infectious diseases.

Brown Datathon

Providence, RI, Feb 2020

Data Analyst, Runner Up Team for the Fidelity Dataset Challenge

- Tested hypothesis on the relationship between public awareness of epidemics and flight patterns of Chinese visitors to America.
- Scraped historical news articles related to major influenza outbreaks from the largest newspaper group in China, analyzed effects of publishing trends and Google search trends on arrival trends from China to the US.

YHack

New Haven, CT, Nov 2018

Team Leader, Software Developer, First-Place Team for the Smartcar API Challenge

- Conceptualized a product after surveying technologies at the hackathon, including the Smartcar API, Firebase, Flask, and React, and recruited a diverse team with the appropriate skill set on the day of the event.
- Set up the server and database infrastructure, integrated the Smartcar API into the application, and provided troubleshooting.
- Oversaw development and guided first-time hackathon participants to develop a remote peer-to-peer car rental application that aims to enable car owners to easily rent out their cars, without installing additional hardware, to maximise their car utility.

HackOMania

Singapore, Feb 2018

Software and Hardware Developer, First-Place Team

- Created a product with a team that cheaply turns normal switches into an internet-connected network of smart switches in order to bridge the transition from 'dumb' homes to smart homes without the need for extensive refurnishing.
- Programmed a Raspberry Pi to act as a gateway between a web interface and Arduinos, using WebSockets and Bluetooth.
- Engineered a system to supervise and coordinate the various hardware and software processes to ensure robustness.

ANALYTICAL EXPERIENCE

Findify

Stockholm, Sweden, Jun 2019 - Jul 2019

Business Development Intern

- Created and launched a playbook for a product core feature that is today being used by clients of the company.
- Set up the company Quality Assurance process by identifying gaps in the development pipeline, aligning stakeholders, training the team on its use, and following up after implementation.
- Laid the groundwork for a product learning center, identified platform topics, recommended the order of implementation that was signed off by the CEO, and kicked-off the process.

LEADERSHIP EXPERIENCE

Brown University Department of Computer Science

Providence, RI, Sep 2019 - Dec 2019

TA for CSCI 1450 Probability for Computing and Data Analysis

- Designed coursework and programming tasks involving Bayes' classifiers, Monte Carlo simulations, and Markov chains.
- Assisted students during weekly office hours to discuss topics covered and conceptual questions for problem sets.

Tinkertanker

Singapore, Jul 2018

Teacher and Lesson Designer

- Developed online visualisation tools and expanded curricula on various computer science topics, such as ethical hacking, networks, software development, and micro:bit programming, for students ranging from ages 10-17.

PERSONAL

Interests Swing dancing, digital painting, gymnastic exercises, fiction writing, sewing