Hong Sng

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EDUCATION

CARNEGIE MELLON UNIVERSITY – B.S. IN COMPUTER SCIENCE, LOGIC   AUG 2021 - MAY 2024
- **Coursework**: Computer Systems, Parallel and Sequential Data Structures and Algorithms, Great Ideas in Theoretical Computer Science, Imperative and Functional Computation. **GPA:** 3.9/4.0
- **Languages**: Python, Ruby, C, C#, SQL, SML, JavaScript, HTML, CSS
- **Frameworks:** Ruby on Rails, React, Gatsby, Node, GraphQL, Bootstrap, Tailwind
- **Apps / Database:** Unity 2D, 3D, Git, Rspec, Heroku, MySQL, PostgreSQL, Unix/Linux

EXPERIENCE

NOVOCALL, SINGAPORE – SOFTWARE DEVELOPER INTERN   MAY 2021 – AUG 2021
- Integrated customer relationship management tool with WhatsApp, Telegram, Shopify
- Improved product market share in Shopify and EasyStore by 10%
- Utilized: Agile Scrum methodologies, React, Ruby on Rails, Postgresql, JS libraries (jQuery, Axios)

NOVENA, SINGAPORE – FRONT-END WEB DEVELOPER INTERN   NOV 2020 – APR 2021
- Built digital storefront that increased post-pandemic sales by 20%
- Initiated responsive web design and mobile optimization overhauls
- Utilized: HTML, CSS, JavaScript, React, Next.js, Tailwind, Shopify Liquid, SCSS, Airtable, Stripe APIs

CARNEGIE MELLON UNIVERSITY – CS TEACHING ASSISTANT   DEC 2020 – PRESENT
- Led events, instruction for a 15-week intensive Fundamentals of Computer Science class

PROJECTS

ASL TO SPEECH CONVERSION (SOCIAL GOOD PRIZE, CMU HACK112)   NOV 2021 – PRESENT
- Trained Tensorflow's deep learning model to identify American Sign Language (ASL)
- Produced real-time translation (Google Text-to-Speech) with a webcam (OpenCV)

LITTER DENSITY HEATMAP (BLOOMBERG SUSTAINABILITY PRIZE)   OCT 2021 – PRESENT
- Trained Detectron2's region-based convolutional neural network model to identify litter
- Used bus camera footage to visualize Pittsburgh's litter density on a heatmap with Google Maps' JavaScript API

MENTAL HEALTH AI CHATBOT   OCT 2021 – PRESENT
- Created hybrid generative and rules-based chatbot with Python's Natural Language Toolkit
- Set up Sentiment Analysis using a naive bayes classifier
- Implemented Part-of-speech tagging through tokenization
- Generated text with Markov Chains

HOMEBOUND – 3D SPACE SHOOTING GAME   FEB 2020 – AUG 2020
- Intergalactic space chase built with Unity 3D and C# Scripting: red-bean.itch.io/homebound