Carl Shen

✉ carl.shen1@uwaterloo.ca | 🌐 jankycs.github.io | ⬛ github.com/jankycs | 🔗 linkedin.com/in/carl-shen

Education

University of Waterloo - Bachelor of Software Engineering (92% GPA)   Sept 2019 - Apr 2024

Relevant Coursework: Algorithms, Databases, Data Structures, Linear Algebra, Statistics, Digital Computers

Skills

Languages Python, Golang, Javascript, GraphQL, SQL, C, C++, Java, Dart, HTML, CSS, Scala

Technologies NodeJS, ExpressJS, ReactJS, MongoDB, Keras, Firebase, Flutter, Git, Flask, Docker, Airflow, OpenAPI, Jupyter Notebook, Apache Spark, Kubernetes

Experience

Wish - Software Engineering Intern, Data & Relevancy (San Francisco, CA)   Sept 2021 – Dec 2021

- Implemented data automation pipelines with **Airflow** and **Python** to process and score the relevancy of search queries for **7,000,000+ products every day** via **Hive SQL** queries
- Developed backend microservices using **Golang**, **MongoDB**, and **Redis** for a new fashion ecommerce app, 1Sansome. Served using a **GraphQL** gateway

NCR Corporation - Software Developer (Waterloo, ON)   Jan 2021 – Apr 2021

- Developed a **Dockerized Java/Maven** app that automatically creates API endpoints using **OpenAPI** specifications. Served with the **GCP Kubernetes Engine** externally and to **80+ engineers internally**
- Revamped the frontend interface using **ReactJS**, **Redux**, and **MaterialUI** by working with designers

TD Bank Innovation Lab - Software Developer (Kitchener, ON)   May 2020 – Aug 2020

- Developed a mobile app using **Google Cloud Vision**, **Firebase**, and **Flutter**, to find relevant scholarships using a photo of a student transcript

Projects

Writing Buddy   github.com/JankyCS/story-generator-nlp

- Created an AI-powered collaborative story generator, deployed as a **DiscordJS** bot and a **ReactJS** app
- Built a **LSTM Recurrent Neural Network** using **Keras** for character-level text generation
- Scraped data with **BeautifulSoup** and preprocessed with **NumPy**, totalling **85,000+ training examples**

Moodly   github.com/JankyCS/mood_tracker

- Developed and released a mood-tracker **Flutter** app with **820+ downloads** on the Google Play Store
- Stored data locally using **SQLite** and encrypted/decrypted data with a **Firebase Cloud Function**

Sagacity - Hack the North 2019, 1st/1500+ Hackers   devpost.com/software/sagacity

- Built an application that converts pictures of fragmented notes into readable and organized notes
- Produced high quality notes by fine tuning the **OpenAI GPT 2** recurrent neural network
- Detected and read text using **Google Cloud Vision** text detection models

Fridge Recipes   github.com/JankyCS/fridge-recipes-mern

- Developed and deployed a **MERN** web-app to search recipes using ingredients already in the kitchen

Interests

Chess, Baking Sourdough Bread, Investing, Personal Fitness, Playing Piano, Graphic Design