

Carl Shen

✉ carl.shen1@uwaterloo.ca | 🌐 janky.cs.github.io | 🐙 github.com/janky.cs | 🌐 linkedin.com/in/carl-shen

Education

University of Waterloo — Bachelor of Software Engineering

Sept 2019 - Apr 2024

Cumulative Average: 93% GPA

Skills

Languages Javascript, Python, Java, C, C++, Dart, HTML, CSS, Scala

Technologies NodeJS, ExpressJS, ReactJS, Redux, MongoDB, Keras, Firebase, Flutter, Bootstrap, Git, SQL, Flask, Swagger/OpenAPI, Jupyter Notebook, Apache Spark

Experience

NCR Corporation — Software Developer

Jan 2021 – Apr 2021

- Developed a **Dockerized Java/Maven** app that creates API endpoints using **Swagger/OpenAPI** specifications and a custom in-house programming language
- Deployed the app in the **Kubernetes Engine** on **GCP** for external customers and ~80 engineers internally to improve efficiency in microservice development
- Revamped the frontend interface using **ReactJS**, **Redux** and **MaterialUI** by working with designers

TD Innovation Lab — Software Developer

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.
- Built a full-stack subscription management **Flutter** app integrated with **Parse Server** for authentication and data storage

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 **85000+ training examples**

Moodly

github.com/JankyCS/mood_tracker

- Developed and released a mood-tracker **Flutter** app with **300+ 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
- Built frontend using **ReactJS** and **Bootstrap**, providing an accessible desktop and mobile experience
- Created a **RESTful API** backend using **NodeJS** and **ExpressJS**. Data stored in **MongoDB** Atlas

Interests

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