Vincent Sun

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EDUCATION

Candidate for Bachelor of Computer Science Honours

University of Waterloo

Sep. 2023 – Expected Apr. 2028

• cGPA: 94.18, Awards: René Descartes National Mathematics Scholarship, President's Scholarship of Distinction

Technical Skills

Languages: Python, TypeScript, JavaScript, HTML/CSS, C, Racket

Frameworks: React.js, Django, Node.js, Pytest, Express.js, TanStack Query, Mantine, Playwright, Pydantic

Technologies: REST, GraphQL, PostgreSQL, MongoDB, Pandas, Snowflake, TanStack Query, Elasticsearch, BASH

Developer Tools: Git, Visual Studio Code, Jupyter Notebook, DataGrip, PyCharm, Jira, Linear, LaTeX

EXPERIENCES

Software Engineering Intern

 $Secoda\ Inc.$

May 2024 – Aug. 2024

- Created a failure detection monitor, reducing incident response time by 70%, with GraphQL requests to Linear
- Decreased integration query speeds by 47% through optimization of Django ORM database queries
- Engineered a sorting algorithm using dynamic weights with **Elasticsearch** to personalize user search results, built behind a search testing framework that is currently being shadow deployed
- Created analytics widgets for users to visualize their data trends and optimized metric update times by 32%
- Developed a Coalesce integration to import jobs and tests built on Snowflake as well as data lineage

Contract Programmer

Dupak Inc.

Jul. 2023 – Aug. 2023

- Reduced annual audit preparation time by 80% by developing a label-based organization method and implementing Google API plugins to automate metadata updates
- Continually updated and collaborated with management during development to ensure requirements were met

Web Developer

AWA DK Canada Inc.

Sep. 2021 – Apr. 2024

- Designed and created a website using Wordpress as the company's primary media platform
- Developed a multilingual setting and customized product pages using HTML+CSS detailing all specifications

PROJECTS

Memory Melody | JavaScript, React.js, Node.js, Express.js, Axios, GPT API, Cheerio

Jan. 2024

- Created a website that lets users input keywords to display nostalgic events while listening to music
- Fetched related images by using Cheerio and GPT API, with communication built using Express.js and Axios

Harmony Haven | JavaScript, React.js, Node.js, Express.js, MongoDB, Chart.js

Aug. 2023

- Developed a game-like web application to improve users' singing using real-time pitch comparisons
- Dynamically sourced songs and lyrics from YouTube and Spotify API to display to the user
- Analyzed pitch with the Web Audio API, visualized data with Chart. is, and stored information in MongoDB

Optimal Shopper | JavaScript, React.js, Node.js, Express.js, puppeteer

Jul. 2023

- Built a website that displays and compares products from nearby grocery stores
- Allowed users to sort results by distance, price, and store, and add products to a shopping list
- Scraped data with **puppeteer** in real-time, and communicated between front-end and backend with **Express.js**

Spectra | Python, Raspberry Pi, OpenCV, Tensorflow

Jul. 2022

- Created an over-the-shoulder bag with a camera that provides audio feedback to assist visually impaired people
- Integrated text recognition and emotion detection features using OpenCV and Tensorflow into a Raspberry Pi
- Demonstrated the product to Ontario Tech University and was recognized for incubation

Chester Voice Assistant | Python, SpeechRecognition, pyttsx3, BeautifulSoup, Google API Feb. 2021

- Programmed a Python voice assistant that scrapes information, and adds events to the user's calendar
- Converted speech to text with the **SpeechRecognition** library and text to speech with the **pyttsx3** library
- Scraped with **BeautifulSoup**, leveraged **Google API** for scheduling, and played videos with **requests** library