Tommy Pang

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EDUCATION

- **University of Waterloo** — Waterloo, ON
  Bachelor of Mathematics — *Sep. 2022 – July. 2027*

- **Unionville High School (UHS)** — Markham, ON
  Recipient of academic honour roll and English subject award in Grade 12 — *Sep. 2018 – July. 2022*

EXPERIENCE

- **UHS Computer Club** — Markham, ON
  Executive — *Sep 2021 - June 2022*
  - Prepared and taught topics in algorithm field
  - Prepared students for CCC (Canadian Computing Competition)
  - 7 students from the club achieved at least top 25% in the contest

- **Contests** —
  Math/Computing — *Jan 2021 - June 2022*
  - UCC Coding Competition(Spring Coding Bowl) 2021 - 20th place & Perfect Score
  - 2022 Canadian Computing Competition - Top 4% / National Honour Roll
  - 2021 Canadian Senior Mathematic Contest - Top 1% / National Honour Roll
  - 2021 Hypatia Math Contest - Top 1.8% / National Honour Roll
  - 2021 Euclid Math Contest - Top 2.5% / National Honour Roll
  - 2021 Fermat Math Contest - Top 5%

PROJECTS

Intelligent Promotion Collector

- The app automates the process of user scrolling through the website to find good deals. It promotes user with clearance items on Walmart based on user's preferences
- Integrated the microservice architecture design pattern
- Developed a Node.js web scraper that fetches promotion items from Walmart
- Constructed a Spring Boot application that accepts promotions from Node.js app and stores them in DB. It exposes Rest API for web and mobile app to query promotions
- Programmed an Android app with Kotlin and XML that gives user a view of the promotion items. User can select their preference and the app will highlight items according to their preference
- Implemented a Spring Boot application that validates user login info and performs requested update on user's preference
- Created a web application that allows users to do everything that's available on the mobile app.
- Language/Framework: Spring Boot, Node.js, Kotlin, JavaScript

Template Editor

- Developed editor UI that allows user to upload or choose existing template to edit.
- Editor UI Supports drag drop of text fields and images using Angular
- Designed text/image elements that are easy to manipulate (delete, drag, upload, rename, etc).
- Implemented a Spring Boot web server that supports CRUD of template.
- Language/Framework: Angular, Spring Boot

Travelling Guide

- Integrated CameraX's Image/Video preview and capture feature

- When the user uses the camera feature, the app will suggest a nearby attraction/location (by consuming Google Map Platform's Nearby Search API) and asks whether the user wants to learn more about it.

- Developed a Node.js web server that accepts the longitude, latitude, and location name from mobile app for searching.

- The user would be able to see all the relevant information regarding attractions they are visiting and want to learn more.

- Designed an algorithm that does a precise search (using the received location data) on Wikipedia and returns relevant information.

- Language/Framework: Kotlin, Node.js

Website Chatbot

- Trained a neural network implemented with Python that is capable of answering simple queries

- Created a Flask web server that accepts user inquiries and gives user an proper response based on neural network

- Developed an UI that can be easily integrated into other websites to allow live conversation between user & bot

- Language/Framework: Python, Flask, JavaScript, HTML/CSS

Programming Skills

Programming Languages: Java, Python, JavaScript, HTML/CSS, Kotlin, TypeScript
Frameworks: Spring Boot, Node.js, Flask, Angular