Napat Karnsakultorn

Year 3, Computer Science and Combined Economics-Statistics Double Major

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Technical Skills

PROGRAMMING	Java, TypeScript, JavaScript, C/C++, PHP*, SQL, LaTeX
APPLICATIONS	Matlab, STATA*, R*
TOOLS	Git/GitHub, MySQL, Node.js*, React, Redux, JQuery *currently acquiring

Academic Projects

Runtime Run Scheduler (MERN)
- Implemented event scheduling based on weather data, user preferences, and other events.
- Implemented part of front-end components with Reactstrap.

Restaurant Inventory Management (PHP, SQL) Intro to Relational Databases
- Created and tested tables using SQL*Plus. Wrote join, view, aggregation, and division queries.
- Wrote back-end code in PHP.

insightUBC Campus Explorer (TDD, TypeScript)
Intro to Software Engineering
- Implemented multiple types of queries (e.g. sorted and aggregate queries) on different data structures based on user input.
- Refactored functions to be flexible to multiple data formats.
- Implemented REST endpoints for queries.

Technical Work Experience

Research Assistant, Game Theory (Repeated Games) Web App
Vancouver School of Economics, UBC (Part-time) May-Sep 2019
- Implemented dynamic front-end displays and back-end evolutionary tournament functionality.
- Implemented custom mutator blocks using Google's Blockly through JavaScript (similar to Scratch blocks).
- Collected strategies from academic papers, then categorized and modeled them into logical structures (i.e. state diagrams).

Hackathons

Route Rater (Typescript, Slack API, public datasets) cmd-f 2019
Royal Bank of Canada's "Most Disruptive Idea" Winner
- Processed csv and JSON data from police departments and the Yelp dataset on opening hours.
- Calculated "safety" scores of based on time of day and relative distance from the sent Google Maps location (latitude, longitude), sent through Slack.
- Integrated back-end with Slack's message API.

3D Files Viewer Slack App (JavaScript, Slack API) NWHacks 2019
- Created a trigger when a file of type .stl is sent, and a return message linking to the online 3D viewer.
- Eliminated the need for an external software, and decreased the number of steps from 4 to 1.

UBC Accessibility Info (Java) UBC Local Hack Day 2017, 3rd place
- Wrote back-end Java web crawler to parse accessibility information and map from UBC's Wayfinding site.
- Users now navigate a single page, as opposed to four.

Personal Projects

Closed Restaurants Analysis (MatLab, PostgreSQL) Jan 2019
- Loaded and transformed Yelp's public dataset using MatLab into corresponding tables on a Postgres server.
- Extracted data using SQL queries.

Repeated Games (Game Theory, Matlab) Apr 2018
- Volunteer work for ECON 221. Coded students' written strategies to compete in a 200-round game.
- Tested for logical discrepancies and undefined behaviors in the written strategies.

Work Experience

Tutor, Undergraduate Economics, Grades 9-12 Geometry, Biology, and Physics) Jun - Aug 2017| Aug 2014 - May 2016