Katelyn Kim

Coquitlam, BC | +1 604 440 5203 | katelynk@sfu.ca LinkedIn: www.linkedin.com/in/jin-young-kim1994

Technical Skills

- Programming languages: Python, VB.NET, C#, JavaScript, HTML, CSS
- Operating systems: Windows, Linux
- UI design: Figma

Work Experience

Application Developer

Mercur IT Solutions

- Developed a multithreaded application in VB.NET that processes text/video/image/pdf files in a network drive by making asynchronous RESTful API calls and saves processed data in MySQL database.
- Developed in Python a recovery process for the multithreaded application to handle stale jobs resulting from an app crash
- Developed in Python a data export process that preprocesses and exports categorical and textual data for model building.
- Implemented web components in Dark Crawler including a scoreboard page for displaying suspicious users based on weighted activity scores and a user profile page visualizing user statistics in ASP.NET and VB.NET.

Research and Program Coordinator

OPEN Technologies

- Independently performed an in-depth feasibility analysis of a prospective application that gives a roadmap of retrofit options for homeowners.
- Collected, merged, and cleaned large datasets from different sources such as EnerGuide Canada, Census, and Stats Can.
- Used supervised and unsupervised models to predict house attributes such as furnace and fuel types and electricity consumption.
- Presented all work done in daily meetings and presented the analysis results to the CEO and the team.

Senior Medical Translator/Reviewer

Cactus Communications

- Translate medical articles including research papers, clinical trial protocols, and medical records from Korean to English.
- Review/revise translated papers and provide feedback to junior translators.
- Communicate with clients to clarify unclear points in source text and suggest revisions.
- Have maintained high client ratings.

Technical Projects

GitLab Analyzer – JavaScript, Java

CMPT 373 – Software Development Methods

- Worked in a team of 6 to develop a CRUD web application using React, Spring Boot, and PostgreSQL that analyzes users' Gitlab contributions.
- Created frontend components displaying contribution data in tables and graphs using RESTful APIs.
- Independently designed the user interface using Figma.

Jun 2016 – Present

May 2020 - Present

Sep 2021 – Present

Oct 2020 - Dec 2020

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Technical Projects (Continued)

UTI Predictor – Python/JavaScript

CMPT 340 – Biomedical Computing

- Developed a web app predicting antimicrobial resistance against urinary tract infection and recommending antibiotics.
- Compared the performance of ML models and improved their accuracy via data cleaning, sampling, and hyperparameter tuning using Numpy, Pandas, and Ibmlearn libraries.
- Achieved prediction accuracy comparable to that achieved by an existing study using the same dataset.
- Designed the UI using Figma and contributed to frontend development using React.

Multimodal Emotion Detection Project – Python

CMPT 419 – Introduction to Affective Computing

- Classified six emotions in smiles and laughter using a multimodal approach (image and audio) and a self-created naturalistic dataset.
- Extracted features including action unit, eye gaze, and mel-frequency cepstral coefficient using OpenCV and Librosa libraries.
- Manipulated and cleaned data using libraries including Numpy and Pandas.
- Used scikit-learn's ML algorithms including SVM and decision tree to classify emotions.

Personal Project

KOR-ENG Medical Dictionary

- Developed a Korean-to-English medical dictionary for personal use using Django, Sqlite, and React.
- Designed RESTful APIs with different permission levels using Django Rest Framework.
- Performed web scraping using BeautifulSoup to provide term context.
- Implemented CRUD operations.

Education

Simon Fraser University

Computing Science - Expected graduation: 2022

McGill University

Pharmacology, Bachelor of Science

Sep 2017 - Present

Sep 2012 – May 2016

Jan 2021 – May 2021

May 2020 – Aug 2020