Dawanit (Neal) Satitsumpun

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Education

University of Wisconsin-Madison May 2021

Bachelor of Science in Computer Engineering and Computer Sciences

GPA: 3.92/4.00

Coursework: Intro to Data Structures, Intro to Algorithms, Intro to Operating Systems, Database Management Systems, Machine Learning, Intro to Artificial Intelligence, Intro to Microprocessor Systems, Intro to Computer Architecture

Programming Skills

Languages: Python, Java, C/C++, JavaScript, Scala, MATLAB, SQL, HTML/CSS
Frameworks/Tools: React, React Native, Django, Tensorflow, Keras, Bootstrap, Git

Experience

Software Engineer Intern, Agoda, *Bangkok, Thailand* June 2019 – Aug 2019

- Developed a web-based tool to generate code for new RESTful API endpoints automatically to the team repository using Github API in Scala.js. The code generated includes routes, unit tests, integration tests, Swagger, SQL table.
- Modified customer data API endpoints in Scala including exception message, Grafana response log.

Software Engineer Intern, Buzzfreeze Solution, *Bangkok, Thailand* June 2018 – Aug 2018

- Developed the frontend of promotion management mobile application in React-Native.
- Incorporated backend APIs and Implemented new features such as QR Code Scanning, searching, authentication, routing, and embedded Google Maps.

Projects

Image Dictionary, Personal Project

- Developed dictionary (with image) web application in React and Django.
- Used Merriam-Webster Dictionary API and Google Custom Search API for looking up word's definitions and images.
- Implemented RESTful APIs for CRUD operation on word query history to SQLite database.

Meme Image Recovery, Personal Project

- Developed an application that can recover an original image from a meme image in Python.
- Utilized Google Cloud Vision API to remove the text from meme image and incorporated an open-source machine learning model in TensorFlow (Generative Image Inpainting with Contextual Attention) to recover the removed regions based on the context of the image.
- Worked with Professor Vikas Singh to research the methods to improve the performance of the pipeline.

Autonomous Go-kart Race Path Planning, Wisconsin Autonomous

- Worked with a team of 8 students to develop the driving functions of an autonomous go-kart.
- Implemented a real-time local path planning using an open-source robotics algorithm (Model Predictive Trajectory Generator) in Python.

Skin Lesion Analysis, AI Club

- Developed a computer vision algorithm to separate the skin pixels that have lesion from the pixel that does not.
- Implemented and trained an SVM(Support Vector Machine) model for background-foreground skin lesion segmentation using scikit-learn Python library.

Wireless Pong Game, Intro to Microprocessor Systems (ECE353)

- Co-developed an interactive wireless Pong game on Tiva-C LaunchPad using C.
- Implemented wireless communication, game physics, and user input handling by utilizing UART, EEPROM, I2C, and SPI interfaces.

Awards

Liechty, Donald Engineering Scholarship, 2019
Laine, Ernest J Outstanding Engineering Student Scholarship, 2019
12^{nd}/202 (teams), North Central North America ACM-ICPC, 2018
25^{th}/90, Silver Medal, Thailand Olympiad in Informatics 2015

Leadership

Vice President, Thai Student Association at UW-Madison, 2019