

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: Data Structures, Algorithms, Operating Systems, Database Management Systems, Graduate Machine Learning, Artificial Intelligence, Microprocessor Systems, Computer Architecture, Introduction to Finance

PROGRAMMING SKILLS

Languages: Python, Java, C/C++, JavaScript, Scala, MATLAB, SQL, HTML/CSS

Frameworks/Tools: React, React Native, Django, Tensorflow, Keras, Bootstrap, Linux, 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

12nd/202 (teams), North Central North America ACM-ICPC, 2018

25th/90, Silver Medal, Thailand Olympiad in Informatics 2015

LEADERSHIP

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