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Pongpatapee (Dan) Peerapatanapokin

GitHub
LinkedIn
Portfolio Website

Education

West Lafayette, IN **Purdue University** **Aug 2019 – May 2023**

- **Major:** B.S. in Computer Engineering, **(GPA: 3.83 / 4.0)**
- **Course work:** Software Engineering, Advance SWE, Data Structure, Python for Data Science, OOP C++, Undergraduate Research, Digital Sys Design, Probabilistic Method

Skills

- **Languages:** Python, JavaScript, HTML/CSS, SQL, C, C++
- **Frameworks:** FastAPI, Flask, Pytest, NodeJS, Express, ReactJS, Tailwind, TensorFlow, SKLearn, SQLAlchemy
- **Tech:** Git, GCP, CI/CD, Postman, Docker, Linux, Vim, Firestore, MongoDB, SnowFlake, Prefect

Employment

Software Engineer, Intern (Backend) **Interos Inc.** **Jun 2022 – Aug 2022**

- Worked in a Scrum team to improve and maintain Backend & API infrastructure
- Addressed regular production bugs in the Backend (Python - FastAPI, DB - Snowflake) using Jira/Kanban
- Fixed broken table view filter and inconsistent values between the map and table view for production
- Fixed and improve Postman tests in CI pipeline by optimizing docker commands to run directly from the image
- Allow for future bulk CSV exports by refactoring/combining Prefect Flow tasks.

Cam2/Google - TensorFlow Model Garden

Undergraduate Researcher **(Purdue University)** **Jan 2022 – Present**

- Collaborating with Google to develop and reproduce exemplar implementation of cutting-edge Machine Learning models and algorithms to contribute to the TensorFlow Model Garden
- Addressing reproducibility issues in ML by contributing to the TensorFlow Model Garden to act as the standard library for future engineers to use and extend existing models
- Reimplementing the YOLOX computer vision model from the original paper in TensorFlow

Undergraduate TA **Purdue University** **Jan 2022 – May 2022**

- Assisted a class of ~300 students with Data Science and Python concepts such as Data Visualization, Hypothesis testing, Regressions, Clustering, Classification, Training and Testing datasets, Regex, etc.
- Using Python libraries such as SKLearn, Numpy, Pandas, Scipy, and MatPlotLib

National Science and Technology

Software Engineer, Intern (Data/ML) **Development Agency** **Jun 2021 – Aug 2021**

- Researched COVID trends and detection methods with Electronic Noses
- Collected and Complied 4 scent datasets with an Electronic Nose
- Visualized, analyzed, and trained KNN and Logistic regression ML models via Pandas, Seaborn, and SKLearn to classify scents from datasets with over 90% accuracy
- Simplified analysis and training process by developing a GUI using Tkinter in Python

Undergraduate Researcher **Purdue University** **Jan 2020 – May 2020**

- Lead android app developer for the OCR image text extraction application
- Improved OCR accuracy by ~15% by using Image pre-processing techniques with different convolution filters such as Edge Detection, Edge Enhancement, De-skewing, and Thresholding

Projects

Trustworthy Module Registry *(ECE 461 – Software Engineering)*

- Designed and developed an automatic grading system for NPM modules to characterize their trustworthiness in Python
- Developed and deployed authenticated REST API in Flask to GCP, for users to interact with the "Trustworthy Module Registry"
- Developed a Pytest test suite consisting of Coverage, Unit, and End-to-end tests
- Sped up development by ~30% by automating tests and deployment using GitHub Actions for CI/CD

Litter Detection AI *(EcoMake Hackathon 3rd Place)*

- Develop a camera litter detection system that maps the location of detected litter around the Purdue campus
- Utilized Azure Computer Vision AI to detect litter by sending images from a Raspberry Pi
- Visualized litter coordinates on a website with Google's Geolocation API and a React front-end