Pakon Pongpeauk

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Education

George Mason University, Fairfax, Virginia

August 2022 - Present

Computer Science, B.S.

Expected Graduation: May 2026

Pertient Coursework: CS 112 (Python), CS 211 (Java)

Experience

Johns Hopkins University Applied Physics Laboratory - Laurel, Maryland

June 2021 – April 2022

Nation's largest research center for universities assisting the U.S. government in the development of technology and national priorities.

ASPIRE High School Intern, Space Exploration Sector

- Written and researched artificial intelligence systems, leveraging weather satellite data to predict disease outbreaks ahead of time.
- Processed large datasets to train a machine learning model using the TensorFlow library.
- Collaborated with a dynamic team of three individuals to achieve project milestones and objectives.

Projects

PeerPort - Java, TypeScript

May 2023 - Present

- Created PeerPort, an online platform enabling college students to trade used goods and services exclusively within their campuses.
- Developed backend functionality using PostgreSQL, Java (Spring), and REST APIs, ensuring seamless data management.
- Orchestrated frontend implementation with Next.js React, delivering a dynamic and responsive user interface.
- Validated user authenticity through college verification, enhancing trust and credibility in listings.

Gesture Predictions – Python

July 2022

- Developed a machine learning model using TensorFlow to classify and predict hand gestures during greetings.
- Engineered a convolutional neural network (CNN) architecture optimized for image recognition.

XCS - TypeScript

August 2021 – Present

- Created a software-as-a-service web platform for efficient access point management within virtual environments, akin to office complexes.
- Developed REST API endpoints leveraging the Express library for seamless communication.
- Engineered the front-end using Next.js (React) and Chakra UI for a modern user interface.
- Implemented MongoDB as the backend database to ensure robust data management.
- Utilized the Firebase app development platform to enhance overall system functionality.

Skills

Languages: Python, Java, JavaScript, C++, Lua, Node.js, React

Cloud: Amazon Web Services (AWS), Google Cloud Platform (GCP), Vercel, Netlify

Other: Linux, Git, Docker, TensorFlow, Django, Express, CI/CD, Rest APIs

Activities

GMU Association for Computing Machinery (ACM)

May 2023 – Present

- Engaged member of the ACM, participating in discussions, workshops, and events focused on advancing computer science knowledge and applications.
- Collaborated with fellow enthusiasts on solving programming objectives.