NATCHAPOL PATAMAWISUT

Phone: (085) 155-3544
Email: natchapol@gmail.com Github: BankNatchapol
Medium: blue-natchapol Linkedin: natchapol-patamawisut
13/33 Nanthawan Bangpai
Bangkae Bangkok 10160

EDUCATION

BS King Mongkut's University of Technology Thonburi, Computer Engineering
GPA 3.77

- Udacity, Data Engineering Nanodegree
  Learn to design data models, build data warehouses and data lakes, automate data pipelines, and work with massive datasets.

EXPERIENCE

Google Developer Student Club 09-2020 to current
Position, Core team
- Organizing Google's events in KMUTT community.
- Sharing knowledge of Google's technologies to community.

Botnoi Consulting Co., Ltd. 08-2020 to current
Position, Data science tutor
- Teaching data science course in 4 modules.
- Machine learning basics, Predictive models, Trend forecasting, and Recommendation system

Microsoft Learn Student Ambassadors 08-2019 to current
Position, Beta Microsoft Learn Student Ambassadors, KMUTT lead
- Organizing Microsoft's events in KMUTT community.
- Encourage community to build their technical skills with Microsoft Learn.

Quantum Optics and Spintronics Laboratory, DP,
Thammasat University 06-2021 to 08-2021
Position, Research intern
- Research on Continuous-variable Quantum Neural Network and implementing with real-world dataset.

AVA Advisory limited 06-2020 to 08-2020
Position, Data Scientist Intern
- Develop Deep learning model for tracking stock patterns with Pytorch.
- Researching about state-of-the-art method for pattern recognition including Dual Path Network, DETR.
- Using Transformer and Siamese model together for One-shot learning task.

PROJECT

Research and Comparison of Quantum Gradients

- Research about all Quantum gradient methods.
- Implementing all Quantum gradient methods with PennyLane.
- Comparing all Quantum gradient methods with defined metric.

Quantum Generative Adversarial Networks (QuGANs) implementation with Quantum Natural Gradient

- Research about how QuGANs works.
- Implementing QuGANs with PennyLane.
- Comparing learning methods of QuGANs.
    - Gradient Descent
    - Quantum Natural Gradient Descent

Implementation of Continuous-variable Quantum Neural Network

- Research about how Continuous-variable Quantum Neural Network works.
- Implementing Continuous-variable Quantum Neural Network with PennyLane.
- Using Continuous-variable Quantum Neural Network with Titanic dataset.

Machine Learning energy management IoT devices and mobile application

- Using ESP32 for creating IoT energy monitoring devices.
- Create React Native mobile application and visualize data from IoT devices.
- Using LSTM for time series energy usages prediction.
- Award - Honorable mention from Top Innovations For Living Competitions 2020.

Thai MNIST handwritten digits image classification

- Using ensemble method to do image classification.
- 2nd ranking in Kaggle competition with MEA score 0.2.

DD Dinner Dog, Tinder for Dog Web Application

- Web application for finding dog's friend or partner.
- Backend using ExpressJS.
- Frontend using ReactJS.

Dashboard for Monitoring and Signaling Elder's Heart Disease

- Using data visualization, dashboard uniquely communicate metrics visually to help users understand complex relationships in elder's activities data.
- Machine learning is used to measure elder's heart disease risk, send this information to display on the dashboard.
- Using data engineering techniques for designing data pipeline with ETL workflow.

CERTIFICATIONS

IBM Certified Associate Developer - Quantum Computation using Qiskit v0.2X

- Certification for passing C1000-112 - Fundamentals of Quantum Computation Using Qiskit v0.2X Developer exam.
- Proof knowledge of
    - Defining, executing, and visualizing results of quantum circuits using the Qiskit SDK.
    - Understanding single-qubit gates and their rotations on the Bloch sphere.
    - Understanding various multi-qubit gates and their effects in quantum circuits.
    - Leveraging fundamental Qiskit SDK features including commonly-used classes and functions located in qiskit.circuit, qiskit.execute, qiskit.providers, qiskit.qasm, qiskit.quantum_info, qiskit.tools, and qiskit.visualization packages.

Azure Fundamentals (AZ-900)

- Certification for passing AZ-900 exam.
- Proof knowledge of cloud concepts, Azure services, Azure workloads, security and privacy in Azure, and Azure pricing and support

TensorFlow Developer Certification

- Certification for passing TensorFlow Developer Certification exam.
- Understanding of building TensorFlow models using Computer Vision, Convolution Neural Networks, Natural Language Processing, and real-world image data and strategies

SKILLS

- Quantum computing
    - Qiskit, PennyLane, Strawberry Fields
- Data engineering
    - TensorFlow, Pytorch, OpenCV, Spark, Airflow, PowerBI
- Databases
    - Cassandra, Postgres, Redshift, CosmosDB
- Programming languages
    - Python, JavaScript, C/C++, R, SQL, MatLab, Solidity
- Software engineering
    - React Native, React
    - Flask, Django, Express, NodeJS, Smart Contract
    - Git, Docker, CI/CD, Scrum
- Internet of Things
    - DAQ, ARMs, LabView, Raspberry Pi