Worapol **Boontanonda**

MSc STUDENT · EX DATA ENGINEER

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Education

MUIC (Mahidol University International College)	*Nakornpathom, Thailand*
B.SC COMPUTER SCIENCE	*Sept. 2014 - Aug. 2018*

- First class honours - GPA 3.57

The University of Edinburgh	*Edinburgh, United Kingdom*
M.SC HIGH PERFORMANCE COMPUTING	*Sept. 2021 - Sept. 2022*

- Currently studying expected to graduate in September 2022

Certification

AWS Certified Developer - Associate	demonstrated proficiency in writing applications with AWS service APIs Expires Feb 2023
AWS Certified SysOps Administrator - Associate	comprehensive understanding on how to deploy, manage, and operate IT systems on the AWS Cloud - Expires Mar 2024
IELTS - Academic	International English Language Testing System. Overall score: 7.5 - Expires Feb 2023

Skills

Programming	Python, Javascript, Typescript, C/C++, Java, Scala, C#, Bash, Go and willing to learn more
Development Tools	Git (Github, Gitlab, Bitbucket), CICD (Gitlab), Jira/Confluence, Markdown
HPC	OpenMP, MPI, CUDA, Slurm, compiling on Intel/Cray/GNU/NVIDIA
DevOps	Docker, Kubernetes, AWS, CDK, Terraform
Database	Postgres, MySQL, MicrosoftSQL, DynamoDB, MongoDB, AWS Athena (Presto), Blob storage (S3)
HPC	OpenMP, MPI, CUDA, Slurm, compiling on Intel/AMD/Cray/GNU/NVIDIA
Languages	Thai - Native, English - Highly Proficient, Chinese - Beginner Level

Experience

Mahidol University	*Salaya, Thailand*
GAME DEVELOPER	*Jan. 2017 - Dec. 2017*

- Developed a Unity C# game call Fuekfon. The game is design for disabled people that recieve a stroke and lose the ability to move, it is design to make rehabilitation more engaging
- Maintained Fuekfon game this include debugging and adding more features
- Add more features to the game such as adding a timer to all of the game
- Refactor some of the code to support highscore system for each user

MUIC (Mahidol University International College)/ TTET (Toyota Tsusho Electronics Thailand)	*Nakornpathom/Bangkok, Thailand*
BACKEND DEVELOPER / DEV OPS	*May 2017 - July 2017*

- Collaborated in writing the window segmenter program to slice data for data analysis
- Wrote deployment scripts for docker-machine to create AWS EC2 instances
- Deployed and support data science team in running their program on EC2 instances this includes creating a Dockerfile for the data science code

MUIC (Mahidol University International College) / NEXTY (Toyota Tsusho Nexty Electronics Thailand)	*Nakornpathom/Bangkok, Thailand*
DATA ENGINEER / DEV OPS / BACKEND DEVELOPER	*Jan. 2018 - May. 2018*

- Wrote a library to launch jobs/tasks on Kubernetes programmatically
- Wrote a data pumper which pump information from the RDS into Kafka
- Wrote a python connector that connect to Kafka and pull information to serve the client
- Deployed web application of the system on docker machine
- Wrote a live stream pumper which pump data from Kinesis into Kafka
- Performance optimization in pumping and consuming data in Kafka

NEXTY (Toyota Tsusho Nexty Electronics Thailand) / TTMI (Toyota Tsusho Mobility Informatics)
Bangkok, Thailand

DATA ENGINEER
Sept. 2018 - May. 2021

- Converted an existing data science model into a platform
- Wrote serverless backend batch processing system using AWS Lambda in Python and Javascript
- Infrastructure as a code using AWS CDK (Cloud Development Kit) using Typescript for deploying AWS server and serverless application
- Infrastructure as a code using Terraform to deploy AWS EKS Kubernetes Cluster
- Wrote backend API using ExpressJS and Django Rest Framework
- Wrote API documentation and detail requirement of the application
- Fullstack development using NextJS (React + GraphQL)
- Unit testing using Jest for Javascript and pytest for Python
- Implement vehicle route problem solver using greedy and heuristic algorithm in Golang and deploy as a callable REST API using AWS Lambda and API Gateway.
- Wrote frontend application using React

The University of Edinburgh
Edinburgh, United Kingdom

STUDENT/RESEARCHER
Sept. 2021 - present

- Threaded programming using OpenMP - benchmarking and optimising existing program using different scheduling options for parallel loop
- Messaging passing programming using MPI to parallelise existing percolation simulation program
- Benchmarking and optimising application using different compilers and compilers flags
- Converting an existing serial/CPU application to execute on a GPU using CUDA or OpenMP targets
- Converting as existing serial scientific program into parallel using MPI
- Compiling and installing program on a GPU cluster - part of student cluster competition

Honors & Awards

DOMESTIC

2016	**Honorable Mention Prize**, Thailand IT Contest Festival	*Bangkok, Thailand*
2022	**TeamEPCC Member**, ISC Student Cluster Competition	*Hamburg, Germany*