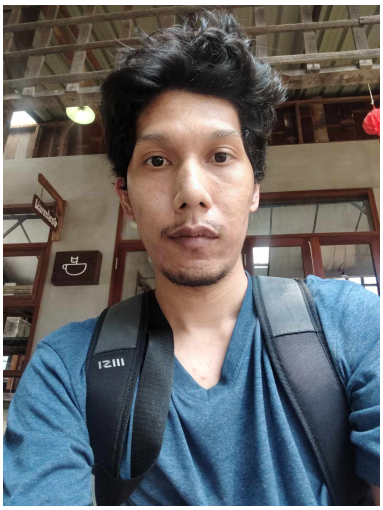
CV



Name: Mr. Phiphat Chomchit
Birth date: 27/02/1995
Location: Chiang Mai, Thailand

Contact Information

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Phone number: 0951851163
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Medium: https://medium.com/@phiphatchomchit
Linkedin: https://www.linkedin.com/in/phiphat-chomchit-517b81206/
Line ID: ornly_p

Profile

I have been coding in Python and **working with Artificial Intelligence/Machine Learning for five years**. I hold a **bachelor's degree in Mathematics** and a **master's degree in Data Science**. My expertise includes Statistics, Probability Theory, Linear Algebra, Calculus, Partial Differential Equations, and Ordinary Differential Equations, all integrated with Machine Learning applications. I have experience building Machine Learning projects using various frameworks and tools, including NumPy, SciPy, Pandas, Scikit-Learn, PyTorch, TensorFlow, FastAPI, GitHub, and Docker.

My projects primarily focus on improving model training time and reducing resource consumption. I believe that modern Machine Learning needs to be optimized for online streaming data, which demands high computational power and fast training. I have experience writing CUDA C to accelerate model training through parallel processing. Additionally, I research models that require fewer computational resources during the training process. I believe my skills can help you develop Machine Learning solutions that enhance your business.

Work Experience

- AI Engineer Consultant – Synapes Thailand | Remote Freelancer | Jan 2022 – Present
    - Cryptocurrency Portfolio Optimization – Developed optimization models for asset allocation, improving portfolio returns while reducing risk exposure.
    - Route Optimization – Designed AI-driven routing algorithms to minimize logistics costs and enhance operational efficiency.
    - Anomaly Detection using Machine Learning – Built anomaly detection systems for fraud prevention, improving security and reducing financial losses.
    - Churn Rate Analysis on Customer Data – Performed data cleaning and visualization to identify high-risk customers, helping improve retention strategies.
    - Predicting Default Debt Rate in Finance – Developed financial risk models to assess default probability, enabling businesses to manage risk more effectively.
    - Conducted training sessions on Machine Learning, PyTorch, and Reinforcement Learning for AIT Thailand. Designed and delivered hands-on workshops, guiding participants in implementing ML and RL models.

Education

- Bachelor's Degree in Mathematics, Faculty of Science, Chiang Mai University (2014–2018)
- Master's Degree in Data Science, Department of Engineering, Chiang Mai University (2021–Present)

Skills

- Programming Languages:
    - Python: Python Data Analysis, Machine learning, AI development,
    - Julia: Mathemtic Models, Simulation,
    - C: Basic programing,
    - CUDA C: Optimization,
    - NetLogo: Agent-Based modeling
- Frameworks & Libraries:
    - NumPy,
    - SciPy,
    - Pandas,
    - Scikit-Learn,
    - PyTorch,
    - TensorFlow,
    - Z3,
    - NetworkX,
    - JupyterLab,
    - FastAPI
- Tools & Technologies:
    - Docker,
    - Git,
    - Streamlit
    - Gradio
- Models & Techniques:

    - Extreme Learning Machine,
    - Reservoir Computing,
    - Reinforcement Learning,
    - Agent-Based Modeling,
    - Attention Mechanism,
    - Transformers,
    - Dendritic Gated Networks,
    - Hyperdimensional Computing,
    - Conformal Prediction,
    - Extreme Value Theory,
    - Portfolio Optimization,
    - Particle Swarm Optimization,
    - Genetic Algorithm,
    - Cryptography,
    - Quantum Computing,
    - Monte Carlo Simulation

Personal Projects

- My medium blog: I write many articles about Probability theory, Mathemtics and AI

    - Using Extreme Value Theory to analyze the worst scenario in the Crypto Market link
    - Trading Strategy Assessment By The Bootstrap Method. link
    - Fermat Factorization Algorithm can break poor RSA encryption. link
    - Let's code Lattice-Based Encryption: The post-quantum encryption. link
    - Deep learning in the Matrix link
    - Extreme Learning Machine (ELM) is the speed-up learning method for Artificial Neural Network link
    - Let's deploy your deep learning model with Gradio. link
    - etc.

- Academic Papers

    - A Product of Two Primes with Difference 2 link

- Conferences

    - Strong-motion Earthquake Prediction Model using Convolutional Extreme Learning Machine link
    - Auto Encoder for Anomaly Detection in the Cryptocurrency Market Using On-Chain Data link

- GitHub Project

    - Complexity Sciece Project link
    - Quantum Tutorial link
    - Implement ML using FastAPI link
    - Basic PyTroch Tutorial link
    - TensorFlow tutorial link
    - Air Pollution Prediction using GNN link

    - Genetic Algorithm for Mathematics link
    - Z3 optimization link
    - Topic Clusting with LDA link
    - Bird Song Detection using Deep Neural Network link
    - Time Table Management using GA link

Certifications

- Super AI Engineer Season 2
- Automated Reasoning: satisfiability link
- Neural Networks and Deep Learning link
- Biology Meets Programming: Bioinformatics for Beginners link
- Introduction to Agent-Based Modeling link
- Nonlinear Dynamics: Mathematical and Computational Approaches link
- Introduction to Dynamical Systems and Chaos link
- Fractals and Scaling link


Credential ID: SuperAI02-088
https://aiat.or.th/cert
SUPER AI ENGINEER 2021
Artificial Intelligence Association of Thailand
This is to certify that
Phiphat Chomchit
has completed enrichment program in Super AI Engineer Season 2
and obtained SUPER AI DEVELOPER
on the 19th August 2022
Dr. Thepchai Supnithi
Vice President, AIAT
Prof. Dr. Thanaruk Theeramunkong
President, AIAT
Dr. Sanparith Marukatat
Executive Chairman
of Academic Committee, AIAT


IEIE
The Institute of Electronics and Information Engineers
ECTI Association
EIC
Certificate of Presentation
This is to certify that
Phiphat Chomchit
presented a paper titled
Strong-motion Earthquake Prediction Model using Convolutional Extreme Learning Machine
at the
ITC-CSCC 2022
The 37th International Technical Conference on Circuits/Systems, Computers, and Communications
July 5-8, 2022
Phuket, Thailand
Chanon Warisarn
King Mongut's Institute of Technology
Ladkrabang TPC Chair
OASYS
TCEB

CERTIFICATE OF APPRECIATION

This is awarded to

Phiphat Chomchit

For an oral presentation on the topic: Leveraging Deep Learning
for Crypto Portfolio Optimization: An Autoencoder Approach
At the Computational Science Summer School 2025 (CSSS2025)
on Optimization and Modelling in Finance and Bioscience
February 17th -21st, 2025
Silpakorn University, Nakhon Pathom, Thailand

N. Chimpalee.

Asst. Prof. Narong Chimpalee, Ph.D.
Dean, Faculty of Science, Silpakorn University

Asst. Prof. Sawanya Sakuntasathien, Ph.D.
Head, Department of Mathematics
Faculty of Science, Silpakorn University

CERTIFICATE OF PARTICIPATION

This is to certify that

Mr. Phiphat Chomchit

has participated in the Computational Science Summer School 2025 (CSSS2025)
on Optimization and Modelling in Finance and Bioscience
February 17th -21st, 2025
Silpakorn University, Nakhon Pathom, Thailand

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Faculty of Science, Silpakorn University