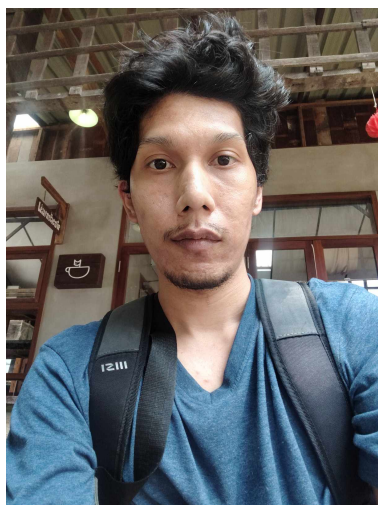


CV



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

Contact Information

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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.

Skills

- Programming Languages:
 - Python,

- Julia,
- C,
- CUDA C,
- NetLogo
- 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

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.

Personal Projects

- My medium blog: I write many articles about Probability theory, Mathematics 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 Clustering with LDA [link](#)
 - Bird Song Detection using Deep Neural Network [link](#)
 - Time Table Management using GA [link](#)

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)

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](#)





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

S. Sawanya

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

N. Chimpalee

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