

# Tanupat Phasithjirakul

Data Scientist & Software Development Engineer

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## EXPERIENCE

### Scientist 3, Data Science

Feb 2024 – Present

Western Digital

- Built company-wide Centralized MCP Gateway connecting 7 internal data sources (Presto, Redshift, Postgres, MSSQL, MLflow, Bitbucket, Jira) to AI tools via per-request credentials
- Launched Enterprise LLM API Platform on AWS Bedrock (EKS → Lambda) with self-service API keys, RBAC, cost tracking by team/user, and audit logs
- Delivered \$3M+ in cost savings through ML-based test optimization pipeline
- Led migration to cloud-based ML platform and established data science best practices

### Senior Engineer, Software Development Engineering (Apps)

Sep 2021 – Feb 2024

Western Digital

- Reduced test processing time by 40% through ETL pipeline optimization using Apache Airflow and Kubernetes
- Built material verification web application used by 500+ users, reducing verification time from 2 days to 2 hours
- Implemented real-time monitoring for 200+ lab PCs, reducing system downtime by 60%

### Engineer, Software Development Engineering (Apps)

Nov 2017 – Sep 2021

Western Digital

- Developed and maintained C++ test applications for hard disk drive testing with 99.5% uptime
- Built PyQt desktop applications reducing manual work by 50%
- Created statistical analysis web tools (Python, SPSS, JavaScript) used across multiple teams

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## SKILLS

**Languages:** Python, C/C++, SQL, JavaScript/TypeScript

**ML & Data:** Machine Learning, MLflow, Apache Airflow, ETL Pipelines, Data Analysis

**Cloud & Infra:** AWS Bedrock, EKS, Lambda, Docker, Kubernetes (k3s), FluxCD, Traefik

**Web:** Next.js, React, FastAPI, MySQL, PostgreSQL

**AI Platform:** MCP Protocol, Streamable HTTP, LLMOps, RBAC, API Gateway

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## EDUCATION

### BE, Avionics Engineering

Jan 2013 – Dec 2017

Civil Aviation Training Center | GPA: 2.75

- Studied electronics design, airplane systems and structures

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## AWARDS

### IEEE Conference Presentation

Oct 2016

Okinawa, Japan

- Design of a dual-band Verre de Champagne Fractal CPW antenna for LTE and aircraft altimeter application