

TEETAJ (TJ) PAVARITPONG

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EDUCATION

University of Illinois Urbana-Champaign

Expected Graduation: Dec 2024

B.S. in Statistics & Computer Science; GPA: 3.54 / 4.00 ; ACT: 34/36

Relevant Coursework: Algorithms, Computer Systems, Database Systems, Distributed Systems (*enrolled*), Numerical Methods, Statistical Modeling, Stochastic Processes, Machine Learning, Programming Languages & Compilers

WORK EXPERIENCE

CVS Health

May 2024 – Aug 2024

Software Engineer Intern

New York, NY, USA

- Designing & implementing an internal tool based on **Retrieval-Augmented Generation (RAG)** for LLMs using **Python**, Azure, Databricks, Docker, and LangChain; fine-tuning open-source LLM models for specific use cases

Agoda

Jan 2023 – Jun 2023

Data Engineer Intern

Bangkok, Thailand

- Migrated Google Ads API report downloader applications using **Hadoop**, **Spark**, **Hive**, **Scala**, and GitLab CI/CD
- Optimized algorithm performance, reducing runtime from **4 hours to 20 minutes**
- Resolved 2 critical production incidents** in ML pipelines for ad bids
- Implemented SQL validation for anomaly detection
- Developed a Slack bot using **Python & GPT-3** for explaining SQL and Spark ETL pipelines

Zipmex

Jun 2022 – Jul 2022

Software Engineer Intern (Frontend)

Bangkok, Thailand

- Revamped the cryptocurrency exchange's website with new **React** components matching Figma designs
- Enabled dark/light theme support with CSS modifications
- Wrote test cases and improved type inference using Jest.js and **TypeScript** to catch & prevent bugs in codebase

Central Group

Jun 2019 – Aug 2019

Software Engineer Intern (Mobile)

Bangkok, Thailand

- Integrated barcode-scanning library into Ionic/Angular mobile app, optimizing warehouse processes
- Utilized Tesseract.js **OCR** for product information extraction from receipts, saving retail workers' time

PROJECTS & INVOLVEMENT

QuantIllinois | Python, PyTorch, NumPy, Pandas

Sep 2023 - Present

- Researching & implementing trading strategies for student-run investment fund
- Modeled options data using time series and deep learning techniques and backtested various strategies

Sociological Factors Affecting Number of Days Absent from School | R, ANOVA, \LaTeX

Dec 2023

- Performed Box-Cox transformation on data then fitted a multi-way ANOVA model
- Found a significant three-way interaction between race, learner type, and school level on the number of absences

Analysis of IMDb Movies Data Set: Estimating U.S. Gross Revenue | R, Linear Regression, \LaTeX

Oct 2023

- Conducted exploratory data analysis and cleaned data to make it suitable for analysis and model fitting
- Fitted a multiple linear regression model to predict the U.S. gross revenue of new movies based on metrics from IMDb data; Validated model by performing regression diagnostics

Illini CC'd: Credit Card Recommender (Team Lead) | React, Node.js, MySQL, GCP, Material-UI

Sep - Dec 2022

- Led team in designing database schema, scraping the web for credit card offers, developing API, creating React front-end, and hosting on GCP

Openflights Dataset Analyzer | C++, Catch2

May 2022

- Implemented BFS, Dijkstra's algorithm, and PageRank for shortest flight itinerary and identifying airport hubs

SKILLS

Languages: Python (advanced), SQL (intermediate), C/C++ (basic), R (basic), JavaScript (basic), HTML/CSS (basic)

Frameworks & Libraries: PyTorch, Apache Spark, React.js, Node.js

Other Tools: Git, Linux, Docker, Agile/Scrum, AWS/GCP (basic), \LaTeX