Punn Kamolyabutr

📞 858-868-1569 ✉ pkamolya@gmail.com ⚫ github.com/punnkam

Education

University of California, San Diego **Expected Graduation: Jun. 2023**
Bachelor of Science in Computer Science *La Jolla, CA*
- **Major GPA**: 3.9/4.0 **Overall GPA**: 3.8/4.0
- **Relevant Coursework**: Advanced Data Structures, Discrete Mathematics, Algorithms & Systems Analysis, Computer Organization & Systems Programming, Calculus: Science & Engineering, Linear Algebra, Software Tools & Techniques
- **Club Involvements**: Blockchain at San Diego (Founder), ACM, Tau Kappa Epsilon

Experience

Scripps Institute of Oceanography **Nov. 2021 – Present**
Software Engineer *San Diego, CA*
- Implementing a time-synchronized communication network for a semi-autonomous oceanic research device - wave glider.
- Performing multi-threaded state management for SBCs powering FLIR cameras to detect and study ocean conditions.
- Developing quality assurance pipelines for data captured by each sensor to make efficient use of limited storage capacity.

Siam Commercial Bank **Aug. 2020 – Nov. 2020**
Data Science Intern *Bangkok, Thailand*
- Increased success of pursuing digital loan defaulters (for repayment) by using classification and clustering algorithms and alternative data collected by the bank to form groups categorized by the likelihood of the constituents returning loans.
- Performed feature selection using correlation and dimension reduction to reduce noise and optimize model performance.
- Calculated and presented an analysis on the effectiveness of machine learning generated leads for digital loan products.

Kiatnakin Phatra Securities **Jul. 2019 – Aug. 2019**
Software Engineer Intern *Bangkok, Thailand*
- Improved operational efficiency by 20% by creating Python scripts that automatically compile and store PnL results.
- Developed back-testing pipelines to measure return metrics, maximum draw-down, and Sharpe ratio of low-mid frequency trading algorithms using stratified historical OHLC data and the BackTrader Python library on Jupyter Notebook.
- Monitored C++ logs of high-frequency trading algorithms operating on financial markets (stat-arb, market-making).

Premier Prep Tutoring **May. 2018 – Oct. 2018**
Software Engineer Intern *Bangkok, Thailand*
- Developed and integrated reusable components to enable easy searching and filtering of courses on a test-prep platform.
- Utilized MySQL queries to acquire course data from the database through a PHP server for display in the React client.
- Collaborated with three other developers using BitBucket source control and led the development of "courses" branch.

Projects

Ethereum Battle Royale | *Solidity, React, Node.js* **Jan. 2022**
- Building an on-chain, infinite battle royale game fought by a collection of [REDACTED]s on Ethereum's Optimism L2.
- Implementing probabilistic calculations to determine winners as a game theory experiment involving ERC20 and 721s.

Home-service Social Network ↗ | *React, Node.js, Express.js, MongoDB* **Jun. 2021**
- Created a web application to connect home-service contractors with homeowners through a social network platform.
- Implemented authentication with JWT and facilitated the appropriate functionality for each user type of the platform.

Crypto Trading Bot ↗ | *Python, Pandas, NumPy, CCXT* **Jan. 2021**
- Built a Python script that arbitrages the spot-futures premium of crypto perpetual futures on centralized exchanges.
- Utilized CCXT to make API requests between different exchanges and manipulated raw data to calculate funding rates.

Technical Skills

Languages: Python, Java, C, C++, HTML/CSS, JavaScript
Frameworks and Libraries: React, React Native, Node.js, Express, Apache Spark, Matplotlib
Other: Linux, Jenkins, Github, Docker, gdb, JUnit