Thien Tran

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Education

University of New Orleans August 2019 - December 2021
Bachelor of Science in Computer Science *GPA: 3.99/4.00*

Skills

Languages	Python, Go, Java, HTML, CSS, JavaScript, SQL
Technologies	Git, REST APIs, Unity, Jupyter Notebook
Libraries	Django, NumPy, Pandas, Matplotlib, Scikit-learn
DevOps	Amazon Web Services (AWS), Terraform, GitHub Actions, Docker, Kubernetes
Certifications	AWS Solutions Architect - Associate, AWS Cloud Practitioner

Experience

Venmo May 2022 - Present
Software Engineer *Austin, TX*

- Saved company $1,142,700 annually in compute and data transfer costs by identifying an unoptimized, continuously running metrics collection process and decreasing the average run-time per job by 96.4%.
- Led a project to improve internal CI/CD observability by designing and developing a proprietary, scalable, high performance microservice using Python, Flask, Docker, AWS Elastic Kubernetes Service, AWS DynamoDB, and DataDog which delivers 14 key real-time metrics about active workflow jobs across Venmo's 1,200+ repositories.
- Assumed responsibilities of Venmo's Site Reliability Engineering team including networking, security, cluster maintenance, observability, operation efficiency and stability, and incident response management services.
- Prevented an internal tools incident by spearheading an effort between 6 teams to replace a critical, quickly expiring, sensitive SSL certificate in a manner consistent with new company and PCI Data Security Standards.
- Became SRE's established engineer for helping the PCI DSS auditing and network assessment teams.
- Educated dozens of Platform Infrastructure and Site Reliability Engineers to support GitHub Actions during on-call rotations by creating an introductory course to Venmo's CI/CD infrastructure and observability.
- Established visibility into cost areas and optimization possibilities for $14,400,000 worth of enterprise CI/CD jobs annually by integrating GitHub Actions Observability API with DataDog cost metrics using Python.
- Enabled 24x7x365 reliability of GitHub Actions synthetic tests, recovering up to 25 failures daily, by developing a failure recovery script using Python and deploying it to AWS Lambda using Terraform.
- Fostered knowledge sharing, collaboration, and improved platform infrastructure availability and reliability by joining on-call and platform engineering support rotations.

Projects

NBA Totals Investment w/ Machine Learning | *Python, XGBoost*

- Generated 13.62% portfolio return per month with a 2.42 Sharpe Ratio by developing an NBA Sports Betting Strategy on Totals Market's daily Over/Under (OU) Lines using a configuration of 2.5% of portfolio per trade.
- Trained an XGBoost model to predict OU results with 54.3% accuracy, gaining an expected 3.66% return per bet.
- Enabled real-time trade monitoring by integrating DataDog with live scores and FanDuel's OU Line movements.

Stocks Simple Moving Average | *Python, Amazon Web Services*

- Built an AWS pipeline that computes the Simple Moving Average (SMA) of historical OHLC-type stocks.
- Created the cloud infrastructure using the AWS Python SDK (Boto3) to automatically initialize and connect two S3 buckets, two Lambda functions, one SNS topic, and one DynamoDB NoSQL database table.
- Decreased the time it takes to calculate SMA by 99.87% compared to manual calculation.

Warframe Inventory Market Info | *Python, OpenCV, PyTesseract*

- Developed a program that automatically gathers 4 different economic attributes about users' in-game Warframe inventory items, saving users about 52 seconds of work per item page compared to manual calculation.
- Generated a list of users' inventory items using OpenCV to isolate item names from the inventory-screen image by thresholding the text colors, and using PyTesseract to read and save the remaining text.
- Enabled better investment decisions and comparisons by collecting the average currency price of the 10 current cheapest live web market value sell-orders using the warframe.market API for each item in users' inventory.