

Thien Tran

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EDUCATION

University of New Orleans

Bachelor of Science in Computer Science - GPA: 3.99/4.00

August 2019 - December 2021

New Orleans, LA

SKILLS

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

EXPERIENCE

Venmo

Software Engineer

May 2022 - Present

Austin, TX

- Saved company \$1,242,700 annually in compute and data transfer costs by identifying an unoptimized, continuously running metrics collection process and helping replace it with an interval aggregation algorithm using Python.
- 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.
- Led a project to improve GitHub Actions 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.
- 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.

USAA

Software Engineer Intern

May 2021 - July 2021

Plano, TX

- Reduced cluttering of a qTest archive by 84% and allowed for easier feature-based auditing by designing a new directory structure for publishing automated infrastructure test results that affected 70 projects.
- Enabled automatic AWS resource tagging on one parameter if not provided by a developer or optional manual tagging otherwise by modifying a custom Terraform provider utilized by 55 projects using GoLang.
- Decreased the cost of conducting network connectivity testing on AWS EC2 instances by 92.38% by developing a selection of 5 AWS Systems Manager (SSM) testing automations using Bash, Terraform, and GitLab CI/CD, saving the company \$56,700 annually in lost wages and productivity.

PROJECTS

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

- Generated 24.66% portfolio return per month with a 1.42 Sharpe Ratio by developing an NBA Sports Betting Strategy on Totals Market's Over/Under (OU) Lines using a configuration of 2.5% of bankroll per trade.
- Trained an XGBoost model to predict OU results with 56.4% accuracy, gaining an expected 7.67% return per bet.
- Automated betting by utilizing CloudBet APIs to get latest data and place bets right before the start of games.
- 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.