

# 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

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

## EXPERIENCE

### Venmo

*Software Engineer*

August 2022 - Present

*Austin, TX*

- Saved company \$1,242,000 annually in compute costs by replacing an unoptimized, continuously running metrics collection process with an interval aggregation algorithm using Python and AWS Elastic Kubernetes Service.
- 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.

### Venmo

*Software Engineer Intern*

May 2022 - August 2022

*Austin, TX*

- Improved fault-tolerance of synthetic testing systems of 4 classes of self-hosted GitHub Actions runners by creating a failure recovery script using Python and GitHub APIs that detects and recovers workflow scheduling failures.
- Enabled 24x7x365 reliability of GitHub Actions synthetic tests by deploying failure recovery script to AWS Lambda using Terraform which triggers every 5 minutes, recovers up to 25 failures a day, and only costs \$0.57 a month.
- Provided better GitHub Actions observability by designing and developing a scalable, high performance microservice using Python, Flask, Docker, AWS Elastic Kubernetes Service, and AWS DynamoDB which delivers 11 key real time metrics about workflow jobs currently active across Venmo's 1200+ repositories.

### 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

### 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 acquire the SMA of an input file by 99.87% compared to manual calculation.

### Warframe Inventory Market Info | *Python*

- 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.