THANH Q DUONG

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EDUCATION

Gettysburg College – B.S in Computer Science, B.A in Mathematics – 4.25/4.0

May 2024

Awards: Malcolm R. Dougherty Mathematics Award, Paul Mugabi problem-solving award, Dean's Honor List, Presidential Scholarship Relevant coursework: Object-oriented Programming with Java, Data Structure and Algorithm, Assembly Language, Theory of Computation, Probability and Statistics, Discrete Math, Linear Algebra, Calculus, Dynamical Systems, Abstract Algebra

Vietnam National University Hochiminh city, University of Science – Data Science and Machine Learning Certificate Relevant coursework: Data Pre-processing, Machine Learning, Big Data Analytics, Deep Learning

May 2022

CodePath

Certificate in Advanced Software Engineering Certificate in Cybersecurity

August 2022

November 2022

EXPERIENCE

X-SIG Summer Research Program - Researcher | Gettysburg, PA

May 2022 – July 2022

- Built a 2-player puzzle game app using the Godot game engine
- Developed an A.I. computer player with different levels of difficulty using Artificial Neural Network and Graph Convolutional Network, increasing the winning rate by 160%

Computer Science Peer Learning Associate | CS Department – Gettysburg College

January 2022 - Present

 Facilitated weekly review sessions for 60+ students in all Computer Science introduction courses (Java, Python, HTML/CSS/JavaScript), grading 30 students' biweekly homework, troubleshooting other problems

Math Peer Learning Associate | Mathematics Department – Gettysburg College

August 2021 - Present

- Delivered weekly class sessions with 20 students in Calculus II
- Held weekly review sessions for 100+ students in all Calculus courses

SKILLS

- Languages: Python, Java, R, HTML/CSS, JavaScript, C++
- Libraries, tools, and frameworks: git, NumPy, pandas, matplotlib, seaborn, scikit-learn, PySpark, MySQL, TensorFlow, keras, Bootstrap, Excel, Tableau

PROJECTS

What The Trend

GitHub | Webpage

- Developed a pipeline analyzing time-series data using the ARIMA model in Python
- Created an interactive webpage using Flask, Python, HTML/CSS to help users analyze time-series data and predict trends without writing codes, deployed to Heroku

Pokemon Image Generator

GitHub

- Applied the Generative Adversarial Networks (GAN) model to generate images of Pokemon
- Reduced the GAN training time by 50% by implementing an <u>Image Colorizer</u> model to simplify the GAN architecture

Julia Set Fractal Interactive Visualization

GitHub | Webpage

Built a webpage for an Interactive Visualization of the <u>Julia Set</u> Fractal using HTML, Bootstrap, and JavaScript

Anime and Cartoon Image Classification

GitHub

- Achieved an accuracy of 90% in building an Anime vs. Cartoon image classification model using Convolutional Neural Network
- Used Flask, Python, HTML/CSS/Bootstrap to build a website deploying the model

Clash Royale Cards Recommendation

GitHub

Built a Card Recommendation System for the card game Clash Royale using the Apriori algorithm in Python, Jupyter Notebook

COCURRICULAR ACTIVITIES

Competitive Programming | Computer Science Department – Gettysburg College

- ICPC 2022: Team with 2 other members to solve 5 coding challenges
- ACM Gettysburg 2022: Rank 2nd out of 20, with 1 other team member

Other activities: Association for Computing Machinery, Gettysburg College Concert Choir, Vietnamese Students Association