

Pat Tran

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WORK EXPERIENCE

Publicis Sapient | Atlanta, GA

June 2023 – August 2023

Software Engineer Intern

- Effectively analyzed and optimized over 100 transport routes with dynamic input parameters, cutting down anywhere from \$10,000,000 to \$60,000,000 in transportation and refinement costs.
- Implemented linear programming algorithms in Python to optimize for cost or volume in the crude oil industry.
- Leveraged Power BI to instantly generate two industry-standard reports, and Google Maps API to display optimized routes with key data on a real-world map, enhancing the decision-making in logistics planning.

Department of Natural Resources | Atlanta, GA

September 2022 – February 2023

Software Engineer Intern

- Collaborated with other developers to successfully redevelop and update a legacy project to ASP.NET Core 7 and modernize the SQL database, improving the application's stability and overall performance by 13%.
- Redesigned the User Interface using Bootstrap, AnchorJS, and Razor Pages to implement dark mode and anchor links, resulting in more modern, visually appealing, and user-friendly web pages.
- Enhanced the deployment pipeline (CI/CD) by implementing Playwright to perform end-to-end tests, parallelizing existing unit tests, and incorporating SonarCloud to track various code quality statistics.

PROJECTS

ITS-Chatbot [code]

January 2021 – May 2022

Team Member and Team Lead for the VIP Program at Georgia Tech

Continuation of the Chatbot project with new approaches.

- Led a team of 3 to boost the execution time by 40% by implementing a different document retrieval algorithm.
- Facilitated a team of 8 to fine-tune the model to increase its accuracy by 15% and explored the Weaviate Vector Search Engine to answer the user query.
- Overhauled an automated test script using PyTest to examine the accuracy of the model.

Game Launcher [code]

May 2022 – December 2022

Personal Project

A game launcher with an instant image translation feature to understand the in-game tasks and rewards.

- Trained a Captcha solver model with PyTorch to achieve an accuracy rate of 92%.
- Created a custom Snipping Tool to capture a selected part of the screen.
- Utilized an ONNX formatted pre-trained model to extract Chinese characters from a captured image.
- Implemented an algorithm to bulk translate text using the free translation APIs and integrated the translated text as an overlay on the captured image.

LEADERSHIP

Viet Hong Vietnamese School | Norcross, GA

July 2020 – May 2021

Lead IT

- Led the weekly meetings to instruct the teachers through the necessary steps for effective online teaching and parent communication.
- Evaluated IT problems with the administrators and formulated the best solution.
- Collaborated with the IT team to create a step-by-step guide in Vietnamese to use software such as Google Meet, Google Classroom, and Google Jamboard.

EDUCATION

Georgia Institute of Technology | Atlanta, GA

January 2021 – December 2023

- Bachelor of Science in Computer Science.
- GPA: 3.73/4.0

SKILLS

- Programming languages:** Java, Python, C, C#, SQL, HTML, CSS, JavaScript, ActionScript
- Library & Frameworks:** Pandas, NumPy, SciPy, TensorFlow, NLTK, Spacy, Gensim, Flask, BeautifulSoup, JavaFX, AWS, JUnit, PyUnit, Rest APIs, .NET Framework, .NET, ReactJS