

Pat Tran

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WORK EXPERIENCE

Publicis Sapient | Atlanta, GA

June 2023 – August 2023

Software Engineer Intern

- Design and implement solutions to a linear programming problem in Python to identify cost or volume-optimized transportation routes in the crude oil industry, increasing the efficiency of route analysis.
- Effectively analyze and optimize over 100 transport routes, enabling the adaptation of input parameters as needed, resulting in more accurate and dynamic route planning.

Department of Natural Resources | Atlanta, GA

September 2022 – February 2023

Software Development Intern

- Collaborate with other developers to successfully redevelop and update a legacy project to ASP.NET Core 7 and modernize the SQL database to improve the application's overall performance and stability.
- Redesign 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.
- Enhance 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.

- Lead a team of 3 to boost the execution time by 40% by implementing a different document retrieval algorithm.
- Facilitate a team of 8 to fine-tune the model to increase its accuracy by 15% and explore the Weaviate Vector Search Engine to answer the user query.
- Overhaul 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.

- Train a Captcha solver model with PyTorch to achieve an accuracy rate of 92%.
- Create a custom Snipping Tool to capture a selected part of the screen.
- Utilize an ONNX formatted pre-trained model to extract Chinese characters from a captured image.
- Implement an algorithm for bulk text translation using APIs and integrate the translated text as an overlay on the captured image.

LEADERSHIP

Viet Hong Vietnamese School | Norcross, GA

July 2020 – May 2021

Lead IT

- Lead the weekly meetings to instruct the teachers through the necessary steps for effective online teaching and parent communication.
- Evaluate IT problems with the administrators and formulate the best solution.

EDUCATION

Georgia Institute of Technology | Atlanta, GA

January 2021 – December 2023

- Bachelor of Science in Computer Science.
- **GPA:** 3.73/4.0
- **Relevant Courses:** Object-Oriented Design (Java), Data Structures and Algorithms (Java), System-Level Programming (Assembly & C), Database System (SQL), Mobile and Ubiquitous Computing.

SKILLS

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