AKHIL DESHPANDE

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EDUCATION

University of Texas at Austin Austin, TX
Bachelor of Science in Physics *08/2021 - 05/2024*

EXPERIENCE

Test Software Engineer 05/2023 - 09/2023, 09/2024-Present
Visa Inc. *Austin, TX*
- Independently created and managed a Flask application that reduced a manual process runtime by 90%
- Used paramiko and oracleDB to automate SSH connection, Kafka messaging, and database validation
- Implemented JSON validation within a fast and reliable UI element to highlight sources of error
- Worked in both developer and testing capacities, fixing bugs and working closely with Java applications
- Wrote aggregation and filtering scripts to find test cases by keyword, bringing product code coverage to 80%

Undergraduate Teaching Assistant 09/2022 - Present
University of Texas at Austin *Austin, TX*
- Influenced the development and delivery of 100+ course materials, including lectures, assignments, and exams
- Led weekly discussion sections and lab sessions, providing individualized support to 30+ students per session
- Graded 60+ assignments per week, exams, and projects, providing timely and detailed feedback to students
- Collaborated with a professor and 15 other teaching assistants to identify and address areas of difficulty for dozens of students, and reinforced strategies to improve overall learning experience

Software Engineer Intern 05/2022 - 08/2022
Dexcent Inc. *Edmonton, Alb.*
- Implemented over 93% test coverage for a Django REST server, ensuring the quality and reliability of the codebase
- Incorporated Postman to automatically send over 30 calls per day and receive data, testing the functionality of the server and debugging any issues
- Synchronized 10+ test cases per day with an independent codebase inside a git branch while automating test runs
- Structured code in a team environment, collaborating with two senior developers to achieve test database coverage

PROJECTS

Text Yourself Python | *Python, Requests, GraphQL* 01/2024 - Present
- Created a Python tool to automatically text myself twice per day with important information related to daily tasks
- Used GraphQL to get information from various sources including leetcode.com to monitor daily status
- Wrote custom request code and used APIs to monitor the weather in my area, including temperature and rain.

Poker-Social | *Flask, Python, HTML, CSS, JS, SQLALchemy* 06/2024 - Present
- Wrote frontend and backend code for a social media application that helps track friendly poker games
- Utilized SQLALchemy and multithreading to provide a framework that can withstand 1000+ calls per minute
- Implemented various economic algorithms to graph earnings and simplify debts at the end of the game

PlanSpacer | *Python, HTML, CSS, JS* 07/2024 - 09/2024
- Developed a web app designed to provide equitable suggestions for activities involving large distances
- Wrote a custom sorting and heuristic algorithm to sort locations based on distance and driving time
- Used Bulma, an opensource CSS framework to create visually appealing elements, as well as a clear site structure

Fixify | *Python, Flask, CSS, HTML, JS, MySQL* 03/2023 - 05/2023
- Created a Flask application to combat Spotify's removal of songs from its database
- Automatically searches user's playlists and identifies songs that are no longer available to play
- Searches YouTube without the need to make an API call, and downloads the song and its according metadata
- Uses a login database to cache data for a user, as well as a smart LRU caching system to reduce computational load

Web Scraping and Audio Compilation Tool | *Python, Git* 05/2022 - 07/2022
- Created a Python script to visit a website, download 700+ specific files, and compile those files into an audiobook
- Included functionality to attach a JPEG cover file to the front cover of each mp3, increasing usability and diversity of files
- Integrated python libraries, including urllib3, glob, eyeD3, and pydub to improve the user interface of the program

TECHNICAL SKILLS

Languages: Java, Python, C/C++, JavaScript/TypeScript, HTML/CSS, LaTeX
Libraries: ffmpeg, numpy, matplotlib, pandas, tensorflow, keras, requests, urllib3, pytest, pydub, Flask, paramiko
Certifications: Product Management, Scientific Computing, Computing
Web Frameworks: React, VueJS, Flask, Django REST, Bulma
Hobbies: Racquetball, High Altitude Mountaineering, Road Cycling, Aerial Cinematography, Video Editing, Bouldering