# **BRYCE RICHARDS**

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## **EDUCATION**

**University of Tennessee** 

April 2021 - May 2025

GPA: 3.63

Bachelor's, Computer Science Major, Data Science Minor

- Data Structures and Algorithms I, Data Structures and Algorithms II
- Data Knowledge and Discovery, Data Management/Visualization
- Computer Organization, Systems Programming, Operating Systems
- Discrete Mathematics, Linear Algebra, Probability and Statistics
- · Software Engineering, Algorithm Analysis

### PROJECTS & OUTSIDE EXPERIENCE

#### fantanofy.com

#### Node.js backend / EJS Frontend Website

- Designed a full stack web application from scratch which uses Spotify's RESTful API to compare users' music tastes to popular music critic Anthony Fantano
- Gathered and formatted large amounts of of his reviews' data using Python, created a MySQL database for querying any matches in the user's top tracks and artists, and designed an engaging visualization page
- Programmed the backend written in Node.js with the Express framework, and the frontend written in responsive HTML, EJS, CSS, and JavaScript
- Deployed to AWS on a Linux server with Nginx, added SEO and SSL certification, and has been used by hundreds of people around the world

recurseAi Next.js 14

- Led the development of recurseAi, utilizing TypeScript, React, Firebase, and Google's Large Language Model, to transform a standard chatbot into a goal-oriented, project-focused, self prompting tool
- Enabled the AI to autonomously break down user-inputted single goals into manageable sub-goals that the AI could then use, enhancing efficiency and user experience
- Participated in agile development within a six-person team, conducting regular sprints and team meetings, which honed my collaborative software development skills
- Integrated self-prompting capabilities in the AI, allowing for dynamic and autonomous task completion, moving beyond traditional single-chain AI interactions

#### **Celebrity Voice Synthesis Neural Network**

**Python** 

- Coded an application used for converting text to audio read out by celebrity voices
- Trained a neural network utilizing the PyTorch Tacotron 2/Wavenet architecture using a custom dataset
- Developed the dataset by scraping publicly available audio from the internet to create training data for the machine learning algorithm
- Utilized these trained models to allow users to input text and have it be read back in the voice of a chosen celebrity

#### PROFESSIONAL EXPERIENCE

## **Adventure Day Camp**

Camp Counselor

Moraga, CA, USA

May 2023 - August 2023

- As a camp counselor, I was responsible for leading 16-18 sixth graders, skillfully balancing firm guidance with patience and understanding to foster an engaging and cohesive group dynamic
- Actively engaged in supervising diverse activities with other counselors, showcasing strong team coordination skills and the ability to foster a collaborative and safe environment.

#### **Buster's Liquors and Wines**

Memphis, TN, USA

Retail Associate

June 2022 - May 2023

- Enhanced customer shopping experience through effective communication and personalized guidance, aiding in product discovery and providing thoughtful recommendations tailored to their preferences.
- Handled order preparation and delivery with professionalism, effectively addressing and resolving any discrepancies such as missing or out of stock items by communicating with customers to problem solve solutions.

## **SKILLS**

General Programming Languages: C/C++, C#, Python, Java, TypeScript, JavaScript, HTML/CSS

Web Development: HTML, CSS, TypeScript, JavaScript, React is, Express is, Node is, AWS, SEO, REST APIs

Data: Python, SQL, Pandas, Excel, Jupyter

General Skills: Linux, Agile Development, Git, Blender, Figma, Adobe Photoshop, Adobe Premiere Pro, Adobe Illustrator