Devon Kear-Leng

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EDUCATION

Brown University, *B.S. Computer Engineering*, 4.00/4.0 GPA   Providence, RI | **Expected Graduation May 2026**

Relevant Courses**:** Computer Systems, Software Engineering, Computer Systems Security, Data Structures and Algorithms, Object Oriented Programming, Circuits and Signals, Digital Electronics System Design, Linear System Analysis

WORK EXPERIENCE

Brown Department of Computer Science, *Research Assistant*   Providence, RI | October 2023 – Present

- Developing a Clinical Decision Support System (CDSS), an interactive virtual assistant that offers context-sensitive, interpretable information and recommendations to enhance patient care for Rhode Island Hospital
- Creating Python scripts that leverage Large Language Models (LLMs), utilizing the Mistral LLM to de-identify medical notes of protected health information to comply with HIPAA standards
- Training LLMs using various frameworks and libraries such as PyTorch, DSPy, and LlamaIndex
- Analyzing the accuracy of LLM de-identification using dataset of 500+ patient records to evaluate performance

RI Department of Administration, *Data Engineering Intern*   Providence, RI | September 2023 – December 2023

- Collaborated with senior data engineers to develop and deploy data pipelines, resulting in a 20% reduction in ETL processing time
- Assisted in implementing security measures and access controls, ensuring compliance with GDPR and reducing data breach risk by 15%
- Contributed to the design and optimization of database schemas, enhancing query performance by 25%
- Provided data management support to over 10+ departments in the State of Rhode Island

Shipley's Donuts, Assistant Manager   New Braunfels, TX | October 2019 – August 2022

- Managed the quantity of various supplies within the store, ordering 80% of ingredients used
- Oversaw the revenue of the franchise, calculating and reporting daily sales of 2 stores
- Served various breakfast items to over 300+ customers per day

TECHNICAL PROJECTS

24Cast   Spring 2024

- Collaborated with 12 teammates in building a web application that attempts to predict the 2024 USA election, with the model achieving 96% accuracy on past races
- Led as both a frontend and backend developer, leveraging the AWS Lambda function to obtain data from the model, while also developing an interactive frontend using **TypeScript**, **HTML**, **CSS**, and **React**

Dropbox   Spring 2024

- Developed with a partner a file sharing system, allowing for basic sharing and editing while keeping data secure
- Implemented said functions in **Python** while leveraging cybersecurity techniques such as asymmetric and symmetric key encryption, HMACs, and hashing

MoodMaps   Spring 2024

- Collaborated with 3 teammates to build a web application which recommends locations based on user listening history
- Led as the backend developer on the team, creating an algorithm to determine user "mood" using **TypeScript**, **Java**, and the Spotify API, using algorithmic results to recommend locations given by the GeoAPIfy API

LEADERSHIP EXPERIENCE

Full Stack at Brown, *Lead Frontend Developer*   Providence, RI | February 2024 – May 2024

- Spearheaded a team of 3 to assist in development of a website for Brown University's Conversational AI Lab, enabling seamless communication among 15+ researchers and collaborators
- Led the construction of a chat board using **Firebase** and **TypeScript**, reducing coordination time by 20% and enhancing efficiency

Brown Political Review, *Lead Web Developer*   Providence, RI | January 2024 – May 2024

- Led over 3 teams in leveraging **HTML**, **CSS**, **TypeScript**, and **AWS** to create department-specific websites
- Enhanced website traffic and speed by 10% through the restructuring of backend systems

SKILLS & INTERESTS

Programming Languages: Python, Java, C, SQL, TypeScript, HTML, CSS, MATLAB
Technical Skills: Linux, Git, React, Node.js, Docker, AWS, Firebase, Figma, Microsoft SQL Server, LTSpice, Fusion360
Interests: Sports, Reading, Traveling, Writing