

Dheemanth Sai Majji

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<https://www.linkedin.com/in/dheemanth-s-majji/> | <https://dmajji.github.io/> | Natural Born US Citizen

Education

Vanderbilt University | *School of Engineering*

Nashville, TN | Expected Graduation: Spring 2026

- ❖ **Majors:** Computer Science, Applied Mathematics **Minor:** Data Science
- ❖ **Relevant Coursework:** Intermediate Software Design, Data Structures and Algorithms, Program Design and Data Structures, Digital Systems, Discrete Structures, Multivariable Calculus, Calculus 1, Calculus 2

Work Experience

Mobile Health for Global Health Vanderbilt Lab | *Software Engineer Intern*

Nashville, TN | Sept 2023 – Present

- ❖ Investigated relationships between New York and Chicago testing sites using the **RedCap API** and **Matplotlib** to visually represent it, summarizing a **5.6% higher false positive rate** at the New York site.
- ❖ Diagnosed and maintained over **50,000 data points** of user test information utilizing **Panda libraries** to filter out **17.27% of outliers and false positives/negatives** within dataset, **improving efficiency by .46%**
- ❖ Summarized these intricate relationships to produce a comprehensive paper scheduled for publishing in Spring 2024.

Medical-image Analysis and Statistical Interpretation Lab | *Science Communication Intern*

Nashville, TN | Feb 2023 – Present

- ❖ Orchestrated the translation and dissemination of scientific research publications into accessible narratives.
- ❖ Regularly audited PubMed for lab publications, ensuring **100% database accuracy** by uploading an **average of 10+** missing monthly entries to maintain research integrity.

Project Experience

Login Testing Window Tracker | *Pandas, Python, RedCap API, Seaborn*

Jan 2024 -Present

- ❖ Leveraged **Python** and **Pandas** to process and analyze over **50,000 health records** from **RedCap API**, boosting data accuracy and removing non-essential admin activities.
- ❖ Utilized **Seaborn** for visual analytics, showcasing a **15% increase in user engagement** during pivotal testing windows, influencing clinical trial strategies.
- ❖ Designed **Python** scripts to automate data cleaning and integration, resulting in a streamlined workflow for user behavior analysis in medical research.

SoundCloud Web Scraper | *Flask.JS, Python, HTML, CSS*

Jun 2023 – Present

- ❖ Developed a web application to scrape streaming data from the SoundCloud digital music library using the **Beautiful Soup Python** package.
- ❖ Predicted potential revenue generation for artists using a currency **API** which computes values based on the scraped streaming data.
- ❖ Created an interactable front-end for user inputs of artists utilizing **Flask.JS** microframework and **HTML / CSS** for beautification.

Guitar Hero Builder | *C++*

Oct 2023 – Present

- ❖ Modeled and simulated a guitar's plucking, vibration and string ring buffer using the **Karplus-Strong algorithm** and linked list queue abstract data type.
- ❖ Generated a **playable .dat file** containing the sampled guitar string audio data using a file comprised of double values.

Flight Data Analysis | *Java*

May 2023 – Present

- ❖ Created a program that takes airport names or abbreviations as input and **reads CSV files** with appropriate data.
- ❖ Returns the annual statistics on flights which were cancelled, delayed, diverted, and on time, as well as % distributions.

Skills & Certifications

- ❖ **Languages:** C++, C, Java, Python, HTML / CSS, SQL
- ❖ **Technologies:** Flask.JS, Pandas, Matplotlib, IntelliJ, Git, NumPy, Python Sci-Kit, Seaborn, Tableau, Web-Scraping, Microsoft Excel, Google Sheets, JUnit Testing, ClickUp, RedCap API
- ❖ **Certifications:** Udemy Python for Data Science and Machine Learning Certificate, IBM Data Analyst Professional Certificate