SHRIYA BIDDALA

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EDUCATION

University of Michigan **Ann Arbor, MI**
BSE in Computer Science Engineering, Minor in Electrical Engineering *April 2026*
- **GPA**: 3.764/4.000
- **Coursework**: Data Structures and Algorithms (C++/Java), Linear Algebra, Robotics Mechanisms, Unix Systems
- **Awards**: 2023 Aspirations in Computing National Honorable Mention, Texas Instruments Codes Competition 2021 Honorable Mention, 2023 MHacks OptiMize Social Track 3rd Place Winner, Joseph M. Geisinger Scholarship Recipient

WORK EXPERIENCE

Freelance Full-Stack Developer February 2024 -
For Michigan Organization (under America Votes) is the largest state college-student voter turnout initiative
- Designed and developed the official website in **HTML5/CSS3/JavaScript**, engaging **thousands** of college students
- Built interactive data directory systems using **ReactJS**, **TailwindCSS**, **MySQL**, **Express.js**, **Node.js**, and **Google OAuth,** hosting and querying data about over **300** employees and various organization's social media accounts

Data Analytics Researcher September 2023 - April 2024
Social A.I. Lab at the University of Michigan, Ann Arbor
- Built a streamlined data processing pipeline using **Python** and **Pandas** to automate **JSON** dataset generation from data merging with **CSV** files (with over **300,000** pieces of data), significantly reducing processing time by **125%**
- Implemented several **Python** algorithms to create a 'heuristic' using statistics (e.x. statistical predictiveness) from estimates from pre-trained **LLM** models to differentiate between over **a hundred** factual and misinformative excerpts

Machine Learning Researcher September 2022 - February 2023
Brain, A.I., and Child Center at the University of Colorado, Boulder
- Constructed an algorithm using **PyTorch**, **Python** and Google Search API on a cloud instance running in **Google Cloud**, to improve keyword recognition and provide queried links to additional information, enhancing the specificity and relevance of generated responses by **110%** for a better assisting conversational agent
- Tested the algorithm's performance using Hugging Face's ROUGE score metric to gauge the quality of the generated response, achieving **75%** of responses exceeding a ROUGE score of **70** on a scale of 0 - 100

PROJECT EXPERIENCE

DocuDog, a Multifaceted Document Summarizer Application for the Google X MHacks Hackathon April 2024
- Devised a query routing system to provide specific API queries to identify information relevant to particular keywords based on the type of user-inputted documentation (e.g. summarization of financial plans on work reports)
- Utilized **Gemini 1.5 Pro API** to parse through user-inputted documents and provide summarized information highlighting key categories of information for user efficiency

Various Websites, Freelance Work January 2024 -
- Developed and deployed customized, responsive portfolio and organization-related websites using **HTML5, CSS3, React.js** and **Tailwind CSS** for enhanced client visibility and engagement

OneVote, a Voter Platform Page for the MHacks 24-Hour Hackathon November 2023
- Built a web page using **HTML5** and **CSS3** to display information on local elections, candidates, and polling locations.
- Leveraged **OpenAI API** summarizer model to accept inquiries and return concise information about relevant policies and political candidates

A.I. Handwriting Recognition Application August 2021 - May 2023
- Created an interface for inputting handwritten documents using **HTML5**, **CSS3**, and **Express.js** for use by over **20** teachers.
- Investigated the integration of **OpenCV** software for image data conversion, allowing the application to convert handwritten components into usable data (line segmentation) for model processing

SKILLS

- Programming Languages: C++ (11/14/17), JavaScript, Python, Java, HTML5, CSS3, Bash, MySQL, Makefiles
- Tools/Frameworks: Git, VSCode, Unix, CLI
  - AI/ML: PyTorch, OpenCV, Pandas, Gemini 1.5 Pro API, OpenAI API
  - Full-Stack: ReactJs, TailwindCSS, Express.js, Node.js
- Software: GitHub, GitLab, MacOS, Linux, WSL, Windows, Google Cloud, Google API