Dheer Guda

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EDUCATION

University Of Maryland College Park   **College Park, Maryland**
B.S. in Computer Science, Minor in Business Analytics   *Expected Graduation, May 2026*
- **Honors:** *Dean's List, QUEST Honors Program*
- **Related Coursework:** Data Structures & Algorithms, Objects & Design, Computer Organization & Programming, Matlab, Machine Learning, Artificial Intelligence, Object-Oriented Programming, Statistics & Applications,R Studio

EXPERIENCE

Startup Software Engineer Intern - SPARK   **Remote, New Jersey**
Full Stack Software Development Internship   *July 2024 – Present*
- Developed and maintained web applications using React and Python, enhancing user experience and application performance. Implemented payment processing solutions with Stripe API, facilitating secure transactions.
- Created and optimized backend services in Python, contributing to scalable and efficient software solutions. Conducted code reviews and provided constructive feedback, improving code quality and adhering to best practices.

SAR Synthetic Dataset Research Intern - Professor Triet Le   **College Park, Maryland**
Software Development Engineering Research Assistant   *December 2024 – Present*
- Using MATLAB, Python, and C, I generate high-fidelity synthetic datasets for SAR imaging, facilitating AI model training without real-world data constraints to better simulate the Earth and create images for better data processing.
- My focus lies in integrating AI with SAR processing to enhance image clarity and detail through machine learning models. Creating this Synthetic data is then utilized by MATLAB to generate reflectivity and convert to an image.

NEMO Research Assistant- Professor Peter Teuben   **College Park, Maryland**
Software Development Engineering Research Assistant   *January 2024 – Present*
- Spearheaded the development of Nemo.PY using Python, significantly boosting system capabilities beyond its original C and C++ base. Modern frameworks allow for better utilization of bash in python, giving enhanced productivity.
- Enhanced algorithms and software for improved file parsing, data handling, and visualization, leveraging UNIX shell and Ubuntu-WSL. Used a Git pull request cycle effectively managing code changes, and streamlining collaboration.

PROJECTS

Audit.AI - Bitcamp 2024 Hackathon Winner   **College Park, Maryland**
Full Stack Developer   *April 2024 – Present*
- Developed a machine learning algorithm using YOLOv8 for image classification, achieving real vs. fake image detection with confidence scoring, and trained the model on a Kaggle dataset using Google Colab's L4 hardware accelerators.
- Created a Chrome extension for image auditing integrated with Pinterest and other image sites, enhancing accessibility; recognized as a winner at Bitcamp 2024 Hackathon.

askTestudo   **Georgetown, Maryland**
Lead Backend Developer   *January 2024 – Present*
- Developed an LLM chatbot using Microsoft Azure OpenAI and Retrieval-Augmented Generator (RAG) to enhance query accuracy and data retrieval for UMD web platforms.
- Designed and implemented a university-themed website with Python, JavaScript, CSS, and HTML, featuring social media links, a campus map, and an animated GIF interface to improve user navigation and engagement.

Sign language Interface for Windows   **Remote**
Lead Backend Developer   *June 2024 – August 2024*
- Developed an LLM chatbot with Microsoft Azure OpenAI and Retrieval-Augmented Generator (RAG) to enhance query accuracy and data retrieval for UMD web platforms.
- Created and integrated a university-themed website using Python, JavaScript, CSS, and HTML, featuring social media links, a campus map, and an animated GIF interface to boost navigation and user engagement.

ACTIVITIES AND CLUBS

University Career Center Tech Lead   **College Park, Maryland**
- As Tech Lead, managed behind-the-scenes technology for events, facilitated programs like "Intern for a Day," and utilized Python and Bravo for technical matching processes, including CSV creation and automation improvements.

Robotics Programming Head (FTC)   **Somerset, New Jersey**
Lead Programmer   *September 2011 - May 2023*
- Led robotics software development for 12 years, specializing in Java and the FIRST API for FTC, with expertise in integrating AI using TensorFlow and utilizing Python for data analysis and sensor interpretation.

SKILLS

Programming: Java, Python, JavaScript, HTML/CSS, SQL, Node.js, React.js, C++, C, React Native, R,
Tools: Android Studio, IntelliJ, Colab, Eclipse, Microsoft Azure, Jupyter Notebooks, Git, Bootstrap, Linux, Unity, Ubuntu