VARUN PULIPATI

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PROFILE

Software Engineer with 3+ years of expertise in designing and maintaining advanced applications with Python, Django, and data analytics tools. Proven success in full-stack development and analytics, with a keen aptitude for problem-solving.

EXPERIENCE

Graduate Research Assistant   2023 - Present
University of Missouri, College of Engineering   *Columbia, Missouri*

- Created a website using SDKs for real-time display and storage of motion gesture and eye tracking data. Led the development of the website, leveraging full-stack capabilities with a focus on Django for the backend and React for the frontend.
- Designed a machine learning model to analyze Xsens motion sensor data from an AR experiment, identifying fatigue levels from gestures and translating them into an intuitive scoring system ranging 0 to 100.
- Ensured model precision of 80% through statistical data analysis of correlation and regular performance evaluations.
- Utilized Python for the automation of data collection and analysis workflows, significantly reducing processing time by 40% and improving the efficiency of ergonomic risk assessments.
- Authored research findings on ergonomic challenges in AR, leveraging Python for data visualization and analysis, contributing to the publication of 4 research papers.

Teaching Assistant   2022 - 2023
University of Missouri, College of Business   *Columbia, Missouri*

- Supported the Management 3300 course, covering foundational topics in emerging technologies.
- Assisted Professor and a class of over 500 in facilitating lectures, answering student inquiries, grading tests and assignments.

Associate Software Engineer   2020 - 2021
Accenture Solutions   *Chennai, India*

- Spearheaded Python-based data analysis for a healthcare project using Pandas and NumPy, significantly improving service efficiency and data insights, while also developing and maintaining Django-based applications for enhanced code quality and application performance.
- Contributed to data security enhancements and database management for millions of records, identifying and correcting data discrepancies, coupled with executing complex MySQL queries via Python for efficient data handling.
- Designed and implemented advanced data visualization tools and multi-page applications, contributing to strategic decision-making in healthcare.
- Proficiently profiled and optimized Python code, rewrote existing modules for specific data format delivery, and developed RESTful APIs using Flask to strengthen web services and PostgreSQL database integration.

Software Engineer Intern   2019 - 2020
Kubwatano Safaris   *Remote*

- Led the development and maintenance of the company's website using Django and Flask to boost user engagement by 75%.
- Utilized Python for extensive data analytics, automating the generation of detailed reports on social media content and campaign performance with Pandas and Matplotlib.
- Played a key role in managing API integrations for social media platforms, significantly improving delivery and engagement.
- Directed a comprehensive re-branding project, creating new visual elements using Python-based graphic design tools to ensure consistency.
- Automated content management and operational processes, significantly reducing manual work and enhancing efficiency.

SKILLS

Languages & Frameworks:	Python, Java, C, SQL, Django, Flask, React.js, Angular.
Web Development & Cloud :	HTML, CSS, JavaScript, AWS, GCP, Azure, SDLC, Agile.
Machine Learning & Analytics:	Power BI, Comprehensive ML, JMP, Tableau, Spark, MATLAB.
Data Management :	MySQL, PostgreSQL, MongoDB, Big Data: HADOOP, Apache tools, Jira.
IDEs and Tools:	Git, Jupyter, VS code, Docker, Kuberntes, CI/CD, RESTful API development.

EDUCATION

University of Missouri, College of Engineering   Columbia, Missouri
Masters in Computer Science   *May 2024*
Cherabuddi Venkata RaghavaRao College of Engineering   Hyderabad, India
Bachelor's in Electronics and Communication Engineering   *June 2020*