Aksheetha Muthunooru

aksheethamuthunooru@gmail.com

linkedin.com/in/aksheethamuthunooru http://github.com/aksheetha

Summary

As a seasoned and forward-thinking Professional Software Engineer, I bring over 3 years of immersive experience in crafting and refining software solutions within both academic and corporate landscapes. My expertise extends across diverse realms, from proficiently navigating software development and APIs in Java, Python, and C++, to delving deep into the realms of Business Intelligence and Data Analytics.

Currently, I'm immersed in the pursuit of my Master of Science degree in Computer Science at UMBC, where I'm immersing myself in the latest advancements spanning algorithms, artificial intelligence, machine learning, distributed systems, and data science. My foundation in Electronics and Communications Engineering from the esteemed National Institute of Technology Sikkim provides a solid underpinning for my journey.

At UMBC, I've been afforded a remarkable opportunity as a Graduate Research Assistant, where I'm at the forefront of conducting statistical data analysis on vast datasets, employing a myriad of tools and techniques. My primary focus revolves around curating an impactful dataset to fuel our fire model for wildfire predictions, a pursuit that ignites my passion for addressing real-world challenges head-on. Concurrently, I'm engrossed in the development and testing of Java-based software applications for seamless data loading and processing, with a track record of delivering successful projects and contributing to published papers in this realm.

Eager to embark on new challenges and ascend to greater heights in my journey as a software developer and researcher, I am actively seeking internships and full-time roles that will not only push my boundaries but also foster my growth within this ever-evolving field.

I'm invigorated by the prospect of forging connections and exploring collaborative avenues in software development and research. Reach out to me.

I'm keen to engage with fellow professionals who share my zeal and contribute to the vibrant tapestry of this dynamic industry. Let's shape the future together.

Experience

AI Researcher

University of Maryland Baltimore County

Oct 2023 - Present (9 months)

I led the aggregating and processing satellite data sourced from diverse channels across Texas and California. This initiative culminated in the compilation of an extensive dataset tailored for a digital twin fire AI model to which I contributed in the development, resulting in a notable 60% enhancement in wildfire prediction accuracy and a commensurate boost in management efficacy. Our achievement was underpinned by the integration of novel algorithms and AI models, alongside the incorporation of ABI data, thereby enriching the predictive capabilities of our system. Through rigorous validation of forecasts, we attained an impressive 70% success rate in predicted accuracy, affirming the efficacy of our methodologies.

Tutor (Java Programming)
Freelance
Oct 2022 - Present (1 year 9 months)

Jr. Java Developer
Maryland Department of Health
May 2023 - May 2024 (1 year 1 month)
Through strategic collaboration with the user experience design team, we meticulously delineate software features and interactions, thereby fostering a synergistic approach that greatly enhances our impact and yields quantifiable outcomes. My role involves not only actively conceptualizing and designing software but also executing its implementation and delivery across diverse platforms and frameworks. This comprehensive involvement enables us to achieve substantial advancements, evidenced by a remarkable 20% enhancement in website performance and a notable 15% augmentation in user engagement metrics. Additionally, I place a significant emphasis on proficient MySQL database management, adeptly diagnosing, analyzing, and rectifying issues, all while aligning closely with user validation and rigorous testing protocols.

Software Engineer
LTI - Larsen & Toubro Infotech
Jul 2020 - Aug 2022 (2 years 2 months)
As a leader within the technology domain, I spearheaded a series of software enhancements, troubleshooting initiatives, and oversaw meticulous data processing, culminating in a remarkable 80% surge in operational efficiency. This concerted effort yielded tangible results, greatly benefiting the technology team and its objectives. Collaborating closely with the development team, I orchestrated the creation of a transformative software solution aimed at optimizing browsing capabilities and enhancing data retrieval effectiveness. Through our collaborative efforts, we achieved an impressive 70% improvement in these critical aspects, reflecting the tangible impact of our endeavors.

Secretary
The Regnant Ink
Jun 2018 - Jun 2020 (2 years 1 month)

Project Intern
Bit Mapper Integration Technologies Pvt. Ltd - A Phoenix Group Company
May 2019 - Jul 2019 (3 months)
Harnessing the power of C++ and OpenCV on an ARM controller, I assumed responsibility for crafting a sophisticated interrogation system tailored for missile detection. This endeavor significantly bolstered our ability to swiftly and accurately identify potential threats, thereby enhancing our overall security posture. Through meticulous algorithm optimization and seamless hardware integration, we achieved a remarkable 90% enhancement in total system efficiency. This substantial improvement was evidenced by noticeably shorter processing times and heightened accuracy levels, reaffirming the efficacy of our approach.

Intern
Electronics Corporation of India Limited (ECIL)

May 2018 - Jul 2018 (3 months)
I spearheaded the comprehensive design and implementation of the International Data Encryption Algorithm (IDEA) within a VLSI framework, leveraging VHDL and Verilog languages in XILINX software. This intricate project involved crafting a robust encryption solution capable of safeguarding sensitive international data. Through meticulous design iterations and rigorous implementation processes, we engineered a highly efficient encryption system that meets the stringent security standards demanded by global data transmission protocols. Our utilization of VHDL and Verilog languages within the XILINX environment facilitated seamless integration and optimization, ensuring optimal performance and reliability of the encryption algorithm. This endeavor underscores our commitment to advancing secure data communication technologies at an international scale.

Education

University of Maryland Baltimore County
Master of Science - MS, Computer Science
Aug 2020 - May 2024

National Institute Of Technology Sikkim
Bachelor of Technology - B.Tech, Electrical, Electronics and Communications Engineering
2016 - 2020

Licenses & Certifications

Excel for Beginners - Great Learning

Oracle SQL - Great Learning

Machine Learning Specialization - DeepLearning.AI, Stanford University
K269V6JZLTFD

Skills

Full-Stack Development • Service-Oriented Architecture (SOA) • Tableau • Ruby on Rails • Microsoft Excel • IMX6 Processor • OpenGL • Xilinx ISE • NumPy • SciPy