

Vivek Sonar

AI/ML Engineer

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SUMMARY

Software engineer with 4+ years of industry experience and 4+ years of collegiate competitive programming experience looking for interesting and challenging job opportunities. Synergizes well with teams of 1 to 20 engineers, thrives in a collaborative environment, and loves to give and receive mentorship.

PROFESSIONAL EXPERIENCE

Florida Atlantic University – Boca Raton, FL

Research Assistant & Teaching Assistant, Aug 2024– Present

- Led the development of AI-based medical imaging software using Streamlit, enabling accurate patient weight detection in emergency scenarios, contributing to faster diagnosis; applied image detection, Human3D, Sapiens-Meta, segmentation, and body part segmentation techniques to eliminate background and isolate subjects, Published a research paper on this project.
- Leveraged RealSense camera and TensorFlow deep learning models to enhance accuracy in patient weight detection, reducing manual errors by 20%, guided by Professors Borko Furht, Abhijeet Pandya, and Dr. Tanveer Jan.
- Guided 50+ students in Advanced Database Systems, facilitating practical labs, lectures, and mentoring, improving overall course comprehension by 30%.

South Florida Water Management District (SFWMD) – Boca Raton, FL

Research Assistant, Oct 2023 – Aug 2024

- Engaged in software development, specializing in creating intuitive GUI applications and advanced data visualization tools, resulting in a 60% improvement in user engagement and data accessibility.
- Proficient in Python, I integrated machine learning algorithms to detect outliers and anomalies (Autoencoders, Isolation Forest, Z score, IQR, Rate change anomaly) in complex datasets, contributing to a 35% increase in data accuracy.
- Developed tools that enhanced data analysis efficiency by 40%, utilizing SQL and libraries like CX_ORACLE, Matplotlib, Tkinter, and Pandas to translate intricate data patterns into insightful visuals, enabling more informed decision-making.

ICCP Foundation – Remote / Deerfield, FL

AI Engineer Intern, June 2024 – Aug 2024

- Developed an application utilizing the sentence-transformer clip-ViT-B-32-multilingual-v1 to generate vector embeddings from social media posts, which are then analyzed against performance data using machine learning algorithms for predictive insights on future posts.
- Designed the frontend with React JS, HTML, and CSS, ensuring a seamless user experience.
- Designed and implemented a comprehensive visualization dashboard utilizing the Layer Chart JavaScript library, competitive analysis of 15 key performance metrics for over 20 industry competitors.
- Integrated automation solutions using Zapier, GoHighLevel, and the ChatGPT API to streamline direct messages, achieved conversion of 50+ leads per week into professional clients while enhancing onboarding efficiency.

KPIT Technologies – Pune, India

Software Engineer, Nov 2021 – May 2023

- Developed and executed software component testing processes for the vehicle network in the KPIT Test Environment Project, bug repairs, created new features, audio comparison, voice recognizer, image processing, buzzer, and other Infotainment systems, and improving performance by reducing save/load time by 30% and operation time by 35%.
- Boosted app engagement by 2x through Oracle database management and Java development, supporting clients like Navistar, Honda, and Vin Fast. Recognized 11 times as "STAR OF THE SPRINT" for on-time delivery.

EDUCATION

Florida Atlantic University– Boca Raton, FL

Master of Science in Computer Science, May 2025

- With a minor in Artificial Intelligence and a 4 GPA.
- Member of Associate of Computing Machinery (ACM) with many achievements (Tau Beta Pi candidate, researcher, Gangal Scholarship-Top 5 student, AI Hackathon with Microsoft)

Publications, Awards

Research Paper: Comprehensive survey of body weight estimation: techniques, datasets, and applications, *Multimed Tools Appl* (2024).

- Certification: Microsoft AI Foundation, Python with Automation, Java, Google Cloud Big Data and ML, C/CPP, Responsible Conduct of Research, CITI-Researcher, Angular, Certificate of Recognition at FAU, Employee Training, and many more.
- ICCP Scholarship, Mentor of Underprivileged students.