



KS SIVANESHAKUMAR

Full-Stack Enthusiast | Biomedical Engineering | AI/ML Enthusiast

Aspiring Biomedical engineer with a strong foundation in coding, AI/ML, and problem-solving. Skilled in Python, C++, and data structures, with experience working on small-scale web and AI projects. Passionate about learning full-stack development and scalable systems. A fast learner, team player, and confident leader with a history of leading technical projects, hackathon teams, and collaborative research work. Eager to grow under world-class mentorship and contribute meaningfully to real-world solutions.

CONTACT ME



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[SIVANESHAKUMAR KS](#)



[PORTFOLIO WEBSITE](#)

EDUCATIONAL QUALIFICATION

B.E Biomedical Engineering
CGPA - 8.73 (5th Semester)
Sri Ramakrishna Engineering
College
2023 – Present

HSC - 84.6% (2023)
Kendriya Vidyalaya
Coimbatore

SSLC - 82.8% (2021)
Kendriya Vidyalaya
Coimbatore

PROJECTS

Review on Advances in Point-of-Care

Jan 2024 - May 2024

Technologies for Cancer Diagnosis

- Conducted a comprehensive literature review on emerging point-of-care (POC) diagnostic technologies for early cancer detection.
- Analyzed advancements in biosensors, lab-on-a-chip, microfluidics, and AI-based diagnostic tools.
- Evaluated the impact of rapid, cost-effective, and portable diagnostic devices in resource-limited settings.
- Developed skills in scientific writing, literature review, and critical analysis of biomedical technologies.

Research Project – In-Silico Analysis of

Apr 2024 - Feb 2025

Natural Extracts for Antimicrobial Activity

- Conducted computational docking and molecular analysis on bioactive compounds from almond peel for antibacterial, antifungal, and antimalarial applications.
- Worked with bioinformatics tools to study interactions between natural compounds and target proteins (Clfa, polyketide synthase, plasmepsin-2).
- Developed analytical skills in data interpretation and molecular modeling.

Research Project – Prediction of Liver

Jan 2025 – Jun 2025

Stiffness Using Elastographic Images

- Co-authored a research study on predicting liver stiffness using FibroScan elastographic images and machine learning algorithms.
- Explored non-invasive ultrasound elastography as an alternative to liver biopsy for fibrosis assessment.
- Implemented ML classification models (Random Forest, Logistic Regression, SVM, etc.), with Logistic Regression achieving 90% accuracy.
- Contributed to manuscript writing, literature review, and data analysis.

Online Document Editor

Jul 2025

- Built using: React.js, Node.js, Express, MongoDB
- Developed a real-time collaborative document editing tool with autosave, user authentication, and Markdown support using MERN stack.

BioGPT Research Paper Summarizer

May 2025 – Jun 2025

- Built using: Python, Flask, BioGPT (Hugging Face)
- Created a web tool that uses BioGPT to generate concise summaries of biomedical research papers, aiding researchers and students.

HR Analytics Dashboard

Jun 2025

- Built using: Power BI, Excel
- Visualized key HR metrics such as employee attrition, demographics, and performance using interactive Power BI dashboards for data-driven HR decisions.

SOFT SKILLS

- Quick Learner
- Project Management
- Technical Writing & Documentation
- Public Relations
- Teamwork & Leadership
- Time Management
- Effective Communication
- Critical Thinking & Problem-Solving
- Research & Scientific Writing

TECHNICAL SKILLS

- Web Development
- Full Stack Development
- Biomedical Image Processing
- Machine Learning & AI – Classification Models (Random Forest, Logistic Regression, SVM, KNN)
- Programming & Simulation – MATLAB, Python, C, Basics of JavaScript, HTML.
- Bioinformatics & In-Silico Analysis – Molecular Docking, Discovery Studios, AutoDock
- Medical Data Analysis – Feature Extraction, Image-Based Classification

ACCOLADES

- AI Ambassador at Department of Biomedical Engineering, SREC
- Joint-Secretary of Biomedical Social Outreach Club, SREC

REFERENCES

Mr.S.Vigneshwaran
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SREC
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Skin Lesion Analytics Dashboard

Jul 2025

- Built using: Power BI, Python (preprocessing)
- Developed a diagnostic dashboard to display insights from dermoscopic skin lesion datasets, supporting early detection using ML-based classifications.

EXPERIENCE

Full Stack Web Development Intern

CODTECH IT Solutions | Remote | June 2024 – August 2024 (2 Months)

- Built responsive front-end components and integrated RESTful APIs.
- Worked with technologies like React, Node.js, and MongoDB.
- Collaborated on real-world web applications under agile development.

Research & Lab Intern

Spinos Life Science Pvt Ltd | Coimbatore | May 2024 – June 2024 (15 Days)

- Gained exposure to biomedical research practices and device prototyping.
- Assisted in lab documentation, testing, and early-stage health tech studies.

CO-CURRICULAR ACTIVITIES

AI Ambassador – Campus Representative

March 2025 – Present

Actively promote AI awareness and learning among students through workshops, webinars, and mentorship. Fostered interdisciplinary collaboration on AI-based projects in healthcare and biomedical domains.

Joint Secretary – BMSOC (Biomedical Social Outreach Club)

Sri Ramakrishna Engineering College

Jun 2024 – Present

Organized biomedical outreach programs, awareness drives, and tech-health campaigns. Coordinated logistics and student teams to drive social impact through biomedical innovation.

Co-Treasurer IEEE EMBS, SREC

Sep 2024 – March 2025

Managed club finances and event budgeting for technical symposiums, guest lectures, and student research initiatives under IEEE’s biomedical wing. Supported financial planning for interdisciplinary events.

CONFERENCES & PRESENTATIONS

International Conference – Bengaluru India Nano 2024

- Presented a poster on "In-Silico Analysis of Azadirachta Indica for COVID-19 Treatment" at the 13th Bengaluru India Nano 2024, organized by the Government of Karnataka & JNCASR.
- Explored computational drug discovery approaches and bioactive compounds for antiviral applications.
- Engaged with experts in nanotechnology, healthcare applications, and sustainability.

National Conference – DRDO Sponsored ASSBA 2025

- Presented a paper titled "Advances in Point-of-Care Technologies for Cancer Diagnosis" at the DRDO-sponsored National Conference on Advanced Smart Materials and Sensor Technologies for Biomedical Applications (ASSBA-2024), organized by Sri Ramakrishna Engineering College.
- Explored innovative biosensor technologies and smart materials for early cancer detection.

International Conference – ICBEST 2025, NIT Raipur

- Presented Paper: "Prediction of Liver Stiffness Using Elastographic Images (Fibroscan)"
- Participated in the 3rd International Conference on Biomedical Engineering Science and Technology – ICBEST 2025, hosted by NIT Raipur.
- Focused on elastographic image analysis and liver fibrosis prediction through computational biomedical methods.