

SURIYA KUMAR S

<https://suriya-kumar-s.github.io>

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Objective

Passionate 2nd-year Biomedical Engineering student eager to apply my knowledge and skills in healthcare technology and research. Seeking internship opportunities to gain practical experience and contribute to innovative projects.

Education

B.Tech in Biomedical Engineering

SRM Institute of Science and Technology, Chennai

CGPA: 9.66 (upto 3rd semester)

Expected Graduation: 2027

Skills

- ✓ Programming & Scripting: *HTML, CSS, R Studio (basic)*
- ✓ Design & UI Tools: *Figma, Canva, Photoshop*
- ✓ Electronics & CAD: *EasyEDA, KiCad, Cadence, AutoCAD*
- ✓ Version Control: *GitHub*
- ✓ Data & Graphing: *OriginLab (basic)*
- ✓ Creative Skills: *Scriptwriting, Video Editing*

Projects

1. Chess Game using AI

- Developed a browser-based chess game with AI opponent
- Features smooth gameplay, intelligent move validation, and responsive design
- Technologies: HTML, CSS, JavaScript

2. Tremor Detection using MPU-6050

- Built prototype using 3-axis gyroscope and accelerometer sensors
- Aimed for medical diagnostic applications detecting hand tremors
- Technologies: Arduino, Sensors

3. Microfluidic Chip Fabrication (Demo)

- Demonstrated microfluidic chip fabrication using CO₂ laser engraving and chloroform vapor bonding
- Conceptual demonstration without precise micro-dimensions
- Technologies: Laser Engraving, AutoCAD

4. Half-Wave Rectifier using Op-Amp

- Designed PCB-based half-wave rectifier circuit using operational amplifiers
- Facilitates learning of analog signal rectification
- Technologies: Op-Amps, PCB Design

5. LoRa + GSM Health Monitoring System (Concept)

- Conceptualized long-range patient monitoring system integrating LoRa and GSM
- Targeted improving rural health connectivity via real-time alerts
- Technologies: LoRa, GSM Modules

6. 12V SMPS Module (PCB)

- Engineered compact SMPS module delivering 12V output with optimized PCB layout.
- *Technologies:* PCB Design, Power Electronics

Certifications & Workshops

- **Ethics in Health Research**
ICMR-NIE, April 2024
Covered biomedical research ethics, clinical trials, informed protection of research participants.
- **Med-Innovate: Disrupting Healthcare with Ideas**
IEEE EMBS Day 2025 – 1st Prize Winner
Awarded 1st prize for presenting innovative solutions on AI-driven vaccine development.
- **Complete Python Bootcamp**
Mastered Python programming fundamentals, including OOP, web development, and automation.
- **PCB Design and Fabrication W/orkshop**
Department of ECE, SRMIST
Hands-on workshop covering PCB design using EasyEDA and fabrication techniques.
- **OriginLab Workshop**
SRMIST
Learned data plotting, curve fitting, and graph customization for scientific research.
- **Basic Statistical Data Analysis using R Studio**
IEEE SRMIST Student Branch
Explored statistical concepts and applied them using R Studio for biomedical datasets.
- **Business Analyst Virtual Internship**
Gained experience in data interpretation, business problem-solving, and stakeholder presentation.

Extracurricular Activities

- Founder – Tamil Devotional Beats YT Channel (130k+ Subscribers)
- Book Reading & Blogging
- Learning new things beyond academics.

Languages

- Tamil (Native)
- English (Fluent)
- Mandarin (Chinese) - TOCFL (Novice Level 2) Passed.