

RAKSHITHA G A

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I am a dedicated and goal-oriented final-year Electronics and Communication Engineering student with a proven record of academic excellence and active participation in extracurricular activities. I possess strong time management skills, allowing me to balance multiple responsibilities effectively. I am eager to contribute my technical knowledge, problem-solving abilities, and passion for innovation to a challenging role in a reputed organization. Seeking an internship opportunity in the Electronics and Communication domain to expand my expertise, develop new skills, and contribute to impactful projects.

EDUCATION

- **AMC Engineering College**, Bengaluru, Karnataka
Bachelor of Engineering (B.E) in Electronics and Communication Engineering, (2021 – 2025)
CGPA: 8.76
 - **B G S PU COLLEGE**, Gowribidanuru, Karnataka
Stream: PCMB
Grade: 95.33 (2021)
 - **B G S PUBLIC SCHOOL**, Gowribidanuru, Karnataka
Grade: 93.60 (2019)
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ACTIVITIES

- I volunteered to oversee, manage, and provide technical support for the "ML10x" image classification model competition, an inter college competition organized at AMC Engineering College.
 - I took charge of coordinating and scheduling a 1-day workshop on the Quartus tool at AMC Engineering College
 - I took part in Arduित्रon 2.0, an inter-college project-building competition that challenged participants to create a project in just one day using Arduino boards.
 - I attended an internship program on Designing with ARM controller using C++ at Tech Inspire, Bengaluru.
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PROJECTS

1. **Automatic Plant Watering System.**
 - Soil Moisture Monitoring monitors the moisture content of soil by using sensors.
 - Self-Watering: Automatically activates water pump/solenoid valve.
 - Energy Efficiency: Minimal energy consumption, customizable settings.
 - I2C Display Module: It's an indicator that shows you the moist level of the soil.
 - Arduino-Based: Utilizes an Arduino board for automation and control of soils.
2. **Solar powered electric vehicle charging station with a backup battery.**
 - Sustainable Use of Energy: The technology harnessed the use of sunlight to charge the electric vehicle's batteries, thus lessening its reliance on energy from traditional sources and further promoting environmental sustainability through the use of renewable sources.
 - Backup Power Reserve: Backup energy supply is given through integrated battery reserve so that the power supply for the charging station remains available, even if there is any kind of blackout or power interruption. It will, therefore, ensure continued service for EV customers.

- Automated Billing System: The project provides an automated billing system that alleviates the complexities of transaction processes for users and operators of stations and even enables them to have a smooth experience during payment while making and monitoring energy consumption.
- Efficiency and Reliability: By harnessing solar energy, pairing it with battery storage systems, and an automated billing system, it enhances the overall effectiveness, reliability, and easy access for EV charging stations for the growth of electric mobility infrastructure.

3. Design and Development of Exam Kit for Children with Dysgraphia Disorder

- Assistive Learning Technology: Developed a writing kit integrating Raspberry Pi and OCR for real-time handwriting analysis, providing immediate feedback to improve letter formation and spacing.
- Empowering Independence: Offered a visual feedback system, enabling children to self-correct handwriting errors and fostering confidence and fine motor skill development.
- Advanced Software and Machine Learning: Utilized Python, and OpenCV for OCR, image processing, and handwriting assessment through deep learning models (CNN, RNN).
- Gamified Learning: Implemented an engaging gamified interface with rewards like points and levels to motivate children during handwriting practice.
- Hardware Integration: Raspberry Pi 4, QPC1010 camera, and TFT display for image capture, processing, and feedback visualization, ensuring portability and ease of use.
- Usability and Accessibility: Designed the kit for classroom and exam settings, offering a stress-free and inclusive solution for children with dysgraphia, with potential scalability for other learning disabilities.

CERTIFICATIONS

- Employability Skills Effective Speaking and Listening Skills, Edu skills in Wadhwani Foundation, 2024
- Data Analytics and Visualization Job Simulation, Forage in Accenture, 2024
- Embedded systems, Edu skills in MicroCip, 2024
- Data analytics and visualization, Accenture, 2024
- MATLAB Fundamentals, LMS Solutions, 2024
- Designing with ARM controllers using Embedded C and object-oriented programming with C++, Tech Inspire, 2023
- Introduction to Embedded System, Skill Lync, 2023
- Python Programming Apponix Academy, 2023
- Introduction to Electronics, Duke University, 2022
- Programming Fundamentals, Duke University, 2022

TECHNICAL SKILLS

- Programming Languages: C, C++, Python
- Software: Octave, LabVIEW using DAQ, Xilinx 14.7 (Verilog HDL), Keil uVision (ARM), MATLAB, Eclipse
- Hardware: Arduino UNO, ESP 32, Raspberry pi.

EXTRACURRICULAR ACTIVITIES

- Coordinator at IEEE signal processing society in our college.
 - Coordinator at IETE technical club in our college
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SOFT SKILLS

- Problem solving: With analytical thinking, creative thinking and with the ability to find innovative solutions, I have been successful in completing the allotted tasks and in various group discussion activities being held in my college.
 - Leadership: I, being the Coordinator of the IEEE and IETE clubs in our college, have demonstrated leadership abilities, taking initiative, and guiding others towards achieving common goals while conducting various technical and non-technical events through the club in our college.
 - Communication: With effective verbal and written communication, active listening and presentations I have been presenting seminars, curriculum related talks and presentation among my peer group in the college.
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LANGUAGES

- Kannada (Mother tongue)
 - English
 - Telugu
 - Hindi
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Signature: Rakshitha