Shantanu Pandey

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Education

Ramaiah Institute of Technology, Bengaluru   *2021 – 2025*
B.E. - Computer Science and Engineering - CGPA - 8.00

Kendriya Vidyalaya DRDO, Bengaluru   *2019 – 2021*
Higher Secondary Education - Percentage - 93.0

Work Experience

Samsung (https://research.samsung.com/sri-b)   *Oct. 2024 – Present*
Research Intern
- Designed a scalable Java SDK for the Samsung SmartThings API, reducing development time by 40%.
- Collaborated with other teams to improve code modularity and cut 70% of boilerplate.
- Planned internal test utilities and mock environments for SDK validation, enhancing the testing efficiency by 40%.

Drona Aviation (https://dronaaviation.com)   *Feb. 2025 – Present*
Project Manager, POC
- Led the end-to-end development of Gesture-Controlled Drones from scratch, reducing manual control effort by 60%.
- Deployed ROS and control systems on Ubuntu (Linux) for real-time drone communication.

Projects

Gesture-Controlled Drone (YOLOv8, ROS, Python) ↗   *2025*
- Engineered an AI pipeline for gesture recognition and real-time drone control.
- Trained YOLOv8 model on 3,000+ images for gesture detection.
- Achieved accuracy of up to 98%.
- Integrated Robot Operating System (ROS) for drone communication via TCP and UDP.

Awaaz-AI (MongoDb, Express, React, Node.js, Google Cloud Platform) ↗   *2024*
- Built a chatbot platform offering legal and trauma support tailored for potentially 81% women who have experienced harassment or trauma.
- Fine-tuned trauma support chatbot, trained on 3,000+ cases across 100 epochs using an 8-layer Gemini model.
- Robust authentication: Secured login and session handling using JWT and Bcrypt, improving authentication security by up to 90%.

Online Clipboard (MongoDb, Express, React, Node.js) ↗   *2024*
- Developed an online clipboard app using the MERN stack to efficiently store and retrieve text snippets.
- Enabled text upload functionality via MongoDB, improving retrieval speeds by 400% over traditional methods.
- Generated access codes for easy retrieval and sharing of uploaded text, reducing search time by 25% and error rate by 20%.
- Added single-click copy-to-clipboard functionality for instant text access and sharing, saving up to 50% of time.

Resume Builder Tool (React, DevOps, @react-pdf/renderer) ↗   *2024*
- Created a resume generator in React that captures user input and generates clean and structured resumes with consistent formatting.
- Automated template generation using CSS, @react-pdf/renderer, and Dockerization, providing instant downloadable PDFs for user resumes.
- Optimized the resume creation workflow, reducing the time spent by users from 2 hours to 10 minutes (90% boost).

Skills

Networking & Security: TCP/IP, DNS, Routing, Switching, Wireshark, VPN, TLS, IPsec, Firewalls, IDS/IPS
Languages: C++, Java, Python, JavaScript
Full Stack: Tailwind CSS, JavaScript, Node.js, React.js, PostgreSQL, MongoDB, Express.js, REST APIs
Developer Tools: VS Code, Git, GitHub, GitHub Actions, Postman, Docker, Render, AWS, GCP, Wireshark, 92 WPM
Other Tech: DBMS, Operating Systems (Linux / Unix), Virtualization, Security, AI/ML, Shell Scripting
Soft Skills: Sales, Public Speaking, Leadership, Discipline, Agile, Team Collaboration, Communication