ABINAS KESHARI SINGH

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# Professional Summary

**Electronics & Computer Science Engineer** with hands-on experience in embedded systems, IoT, EV R&D, and drone technology. Skilled in Python, Java, React Native, and circuit design with proven expertise in Raspberry Pi, ESP32, and Renesas microcontrollers. Strong background in smart systems, home automation, and secure IoT applications. Currently interning at Archon Motors Pvt. Ltd. in EV research & development.

# Experience

* Research Intern (EV R&D) – Archon Motors Pvt. Ltd. (Jun 2025 – Present)

- Developed embedded EV control systems on Renesas microcontrollers with CAN bus motor control.

- Contributed to Battery Management System (BMS) design, enhancing reliability & efficiency of prototypes.

* Lab Fellow – NI Lab, NIST University (Nov 2022 – Present)

- Upgrading a Smart Mirror project with AI & IoT integration.

- Researching 5G communication frameworks for autonomous drones.

* Freelancer – Technology Consultant (2022 – Present)

- Delivered technical & business solutions for startups.

- Guided junior students on robotics and IoT through workshops and mentoring.

* IoT Student Partner – Bolt IoT (Feb 2020 – Apr 2020)

- Built IoT prototypes integrating sensors with cloud platforms.

# Key Projects

• Raspberry Pi Theft Detection System – Real-time GSM alerts & motion tracking for security.

• ESP32 Home Automation – Automated lights & fans with relay control, improving energy efficiency.

• Tech-Wave Blogging Platform – Next.js + Strapi CMS with Google AdSense integration.

• 5G Drone Integration (In Progress) – Developing private 5G low-latency communication for drones.

# Education

B.Tech, Electronics & Computer Engineering – NIST University (2022 – 2026)

# Skills

Programming: Python, Java, C, TypeScript, React Native  
Hardware/IoT: Arduino, ESP32, ESP8266, Raspberry Pi, Renesas MCU  
Tools: MATLAB, TinkerCAD, Blender, MS Excel/Word  
Domains: EV Systems, IoT, Embedded Systems, Drone Building & Programming, Data Science

# Certifications

• NPTEL: Python for Data Science

• Blockchain Process – Great Learning

• Digital Marketing Strategy – Great Learning

# Languages

English (Fluent), Hindi (Native)