Bhavya Mathur

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Education	Institute	Year
Bachelor of Technology - BTech, Aerospace Engineering	VIT Bhopal University	2022-26
Japanese Language and Literature	Henry Harvin	2024-26
High School	Central Academy Schools	2020-22

Research and Awards

- **Research: Hyperspectral and Multispectral Satellite Image Fusion for High-Accuracy Data Detection**
- **Research: Enhancing Turbofan Efficiency with Mobius Strip Blades** (Dr. G.K. Prashant, Aug'23-Present).
- **Chapter on Smart Grid and Energy Management in SCPS**, CRC Press (Dr. V.S. Kushwah, Accepted)
- **Team GarVIT: eBAJA & MEGA ATV Championship** AIR 2 in Sales, AIR 3 in Manufacturing, 45,000 total prize money, 2 additional awards.
- **Smart India Hackathon** Waterless spittoon system; Top 7 out of 500 teams intra-college teams.
- **MPCB Hackathon** Nationwide AIR 11/10,000+; blockchain-based e-waste recycling platform.
- **FINWIZZ Competition (VIT)** Winner among 50 teams in a finance-tech challenge.

PROJECTS

- **Waterless Spittoon Station**, *(Smart India Hackathon)*   *(Aug'24-Present)*
  - Developed an IoT-enabled, self-cleaning spittoon with waste-to-manure conversion.
  - Integrated smart sensors and automation, reducing disease spread by 30-50%.
- **Team GarVIT: 4-Wheel Drive ATV**, *(BAJA Competition)*   *(Nov'22-Jun'24)*
  - Designed a high-performance ATV (60 km/h) with enhanced durability.
  - Led marketing and sponsorship, increasing engagement by 30x and raising 3 lakhs.
- **Ecoleif: Gamified Recycling App**, *(Startup Competition)*   *(Mar'24-Jun'24)*
  - Web App to incentivize recycling using gamification.
- **Remote Exploration Device for Sample Identification**, *(ISRO iRockU Competition)*   *(Nov'23-Jan'24)*
  - Designed a 5-wheel rover for sample identification in challenging terrains.
- **VITRACK: AI Visitor Management**, *(Team Project)*   *(Mar'24-May'24)*
  - Built an AI-powered check-in system with facial recognition and automation.

TECHNICAL SKILLS

- **Programming**: Java, Python, JavaScript, HTML, CSS

- **Tools & Libraries**: LaTeX, SolidWorks, ANSYS, MATLAB, Autodesk

WORK EXPERIENCE & INTERNSHIPS

- **Winter Internship Technical Training** | *India Space Lab*   *(Dec'24-Jan'25)*
  - Secured Merit list with AIR-464; Trained in Space Science, Advanced Drones, CanSat CubeSat Programs.
- **Chief Operations Officer Intern** | *Wellsphere360, Virtual*   *(Oct'24-Dec'24)*
  - Managed 150+ daily tasks, increasing sales by 40% and leads by 200+ daily.
- **Project Management Intern** | *Saint Louis University, Virtual*   *(May'23-Jun'23)*
  - Delivered a $500K global conference, increasing partnerships by 50%.
- **CAD Design Intern** | *Prakesh Metals Ebco, Jaipur*   *(Mar'23-Aug'23)*
  - Designed 3D models for customized furniture and home solutions.
- **Java Development Intern** | *Samyak IT Solutions, Jaipur*   *(Mar'23-Aug'23)*
  - Built a Swing/SQL-based "Recycling" app, optimizing queries by 30%.
- **Aerospace Engineering Intern** | *Orbitx India Aerospace, Virtual*   *(Jul'23-Aug'23)*
  - Streamlined design workflows and reduced fabricate-test iterations by 30%.

Certifications

- **Wind Energy**, Technical University of Denmark (DTU)   *(Dec'23 - Jan'24)*
- **Overview of Free and Open Source Software for Geospatial Technology FOSS4G**, (ISRO)   *(Jul'23 - Aug'23)*

- **Digitalisation in Aerospace**, Technical University of Munich (TUM) *(Jun'23 - Jul'23)*
- **Aircraft Lease Training**, International Aviation Lease Training Association (IALTA) *(May'23 - Jun'23)*
- **Project Management**, Google *(Apr'23 - Jun'23)*
- **Aircraft Design**, IIT Kanpur - NPTEL (12-week course) *(Jan'24 - Apr'24)*
- **Postgraduate Diploma in Digitalization of Retail Banking**, The Graduate School of Management, Technology, and Finance *(Apr'23)*
- **NGO - Content Writing Internship**, Kshitiksha Foundation *(Jun'24 - Jul'24)*
- **Python Essentials & Fundamentals of AI and ML**, Vityarthi *(Jan'23 & May'23)*
- **Explore Engineering Virtual Experience Program**, GE Aerospace *(Apr'23)*

Workshops

- **SPARC India-Australia Workshop on Vehicle Aerodynamics**, MNNIT Allahabad *(Jan'24)*
- **Unlocking Insights, Trends, and Job Opportunities in the EV Industry**, Skill Lync *(May'23)*
- **AI for Medical Imaging Webinar**, Health-O-Tech, VIT Bhopal *(Dec'22)*
- **Neural Networks, Like a PRO**, AI Conclave 2.0, VIT Bhopal *(Dec'22)*