Yashmitha Desai

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Bangalore, Karnataka, India

Technical Skills

Languages; Python, C, HTML, CSS, JavaScript, PHP, Java, Kotlin
Developer Tools: VS Code, GitHub, Android App Development
Technologies/Framework: React, Node.js, Express.js, MongoDB, SQL

Work Experience

Vortex Media Management **04/25-05/25**
Front-end Development Intern *Bangalore,Karnataka*
•Build responsive dashboards using **Next.js**
•Develop clean, secure, and scalable front-end interfaces
•Work closely with teams to meet real-world deadlines

SpikedAI **11/25-present**
Product Development Intern *Bangalore,Karnataka*
• Integrated Asana API for real-time, bi-directional task syncing in sales meetings
• Implemented AI-driven task suggestions derived from meeting analysis
• Developed 360° CRM dashboards for unified customer intelligence

Education

- **R.V College of Engineering | CGPA : 9.3** *September 2023 - Present*
  B.E in Computer Science and Engineering(CyberSecurity) Bangalore, Karnataka
- **Deeksha C F L PU College | State : 95.5%** *May 2023*
  12th State Bangalore, Karnataka
- **Sishu Griha English School | ICSE : 96.67%** *March 2021*
  10th ICSE Bangalore, Karnataka

Projects

- **Digital Twin for Smart Buildings** *Dec 2025*

Tools: Python, FastAPI, React.js, TensorFlow (LSTM/Autoencoder), InfluxDB, Hugging Face (Llama-3), WebSockets, Vercel/Render [ ]

  - Architected a real-time Digital Twin platform featuring interactive **3D visualization (Three.js)** and live telemetry via WebSockets, enabling immersive remote monitoring of HVAC dynamics and building systems.
  - **Deployed advanced ML pipelines** (LSTM & Autoencoders) trained on the **ASHRAE dataset** to forecast 24-hour energy loads and detect system anomalies, driving data-led decisions for energy efficiency and retrofitting.
  - Integrated a GenAI assistant powered by **Llama-3.2-3B** to interpret complex building metrics through natural language, allowing facility managers to instantly query status and receive optimization suggestions. Deployed on Vercel.

- **AI-Powered Peer Learning Matcher** *Jan 2026*

Tools: Python, FastAPI, BERT (Sentence Transformers), Knowledge Graphs, REST APIs, HTML/CSS/JavaScript [ ]

  - Engineered a hybrid recommendation system combining NLP semantic analysis (all-MiniLM-L6-v2) with a custom **ontology-based Knowledge Graph** to match students based on complementary strengths and weaknesses.
  - **Developed a dual-scoring algorithm** that calculates both "Contextual Fit" (cosine similarity) and "Structural Overlap" (Jaccard similarity), increasing matching accuracy by recognizing indirect skill relationships (e.g., mapping "FastAPI" to "Web Development").
  - Built a high-performance REST API using FastAPI to serve real-time matching results and project recommendations, featuring a responsive, glassmorphism-styled frontend for seamless user interaction.

- **Phishing Detection** *April 2025*

Tools: Python, Flask, Neo4j, CSS, HTML [ ]

  - Built a Flask-based web app to detect phishing using Levenshtein distance, Jaccard similarity, and entropy scoring. Visualized suspicious domain clusters using Neo4j to identify brand-targeting patterns.
  - Designed a **Chrome extension** for real-time domain checking with a visual **risk meter** and redirect suggestions. Integrated bulk domain checker, **SSL certificate status**, and **WHOIS lookup** for enriched threat analysis
  - Achieved 95%+ accuracy and <200ms response time for known phishing domains. Developed an admin analytics dashboard for monitoring phishing trends and activity.

- **Football Team Optimization** *December 2024*

Tools: Python, Python-flask, React, MERN stack [ ]

  - Built an AI-driven system to shortlist football candidates based on performance metrics. Utilized **NumPy** and **Pandas** for data analysis and preprocessing.
  - Visualized candidate performance using **Matplotlib** and **Seaborn** for insights. Trained machine learning models with **Scikit-learn** for candidate evaluation.
  - Developed a dynamic frontend using **React.js** for user interaction. Integrated a **Node js** backend for efficient data handling and model deployment. Secured user authentication by storing login details in **MongoDB**. Succesfully hosted the website on **Streamlit**.

- **Automated Home Gardening** *December 2024*

Tools: Android Developers, Arduino [ ]

  - Built an advanced gardening app using **Android Developers** and **Arduino** for hardware integration. Integrated sensors to monitor key parameters like soil moisture and temperature. Utilized **Java and Kotlin** for the development of the app.
  - Automated gardening suggestions based on sensor data and weather predictions. Combined software and

hardware solutions for efficient, data-driven automation.

Patents and Publications

C=Conference, J=Journal, P=Patent, S=In Submission, T=Thesis

[C.1] Yashmitha Desai, et al. (2024). **Wind turbine configuration for urban areas using QBlade**. In *International Conference on Modeling, Simulation and Optimization(CoMSO 2024)*, 9/4/24, NIT Silchar.

[C.2] "Adversarial Attack & Defense on Image-Based CAPTCHA," *2026 IEEE International Conference on Smart Future Technologies* (ICSFT), Jan 2026.

Additional Information

Community Service Program: Volunteer at NSS RVCE, member of IEEE (Treasurer at IEEE SIGHT)
Club activities: Active member of design and media team at TEDxRVCE and E-CELL RVCE
Languages: English, Telugu, Kannada, Hindi
Interests: Dancing, Reading, Playing Ukelele, Travelling