

# Piyush Airani

BigData Engineer & Tech Entrepreneur

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## Professional Profile

Software engineer with parallel experience in enterprise data engineering and startup leadership. My technical foundation (started coding at age 13) combined with entrepreneurial drive allows me to develop innovative solutions across big data, full-stack, and AI domains. Currently balancing roles at TCS and my startup Blink42 Technologies.

## Professional Experience

### BigData Engineer

Jul 2024 – Present

Tata Consultancy Services

Pune, India

- Engineer batch processing pipelines for financial compliance data at petabyte scale using Hadoop ecosystem
- Accomplishment:** Reduced ETL execution time by 37% through Python automation scripts
- Led comprehensive testing of Hive to HBase data migration, ensuring zero data loss across 6TB+ of sensitive data
- Build ETL workflows using HQL and Python for large-scale data encryption transformation

### HR Technology Intern

Jan 2024 – Jun 2024

Hindalco Industries

Belagavi, India

- Developed a comprehensive Learning & Development portal that replaced manual Excel and paper-based processes
- Key Impact:** Transformed training registration, tracking, and reporting, saving hundreds of man-hours monthly
- Recognition:** Project gained visibility with company leadership including the CHRO, leading to regular executive meetings

### CoFounder & CEO

Dec 2023 – Present

Blink42 Technologies

India

- Founded and leading development of SiBi, an AI-powered product recommendation platform
- Metrics:** Prototype reduced average consumer research time from 45 minutes to 12 minutes in user testing
- Previously developed YellowShuttl, a fleet monitoring solution with 600+ daily active users
- Impact: Reduced student wait times by 68% and improved fleet efficiency by 32%
- Successfully shipped mobile applications on Play Store and App Store

### Chief Technology Officer

Oct 2023 – Jan 2024

HeyDaw Technologies

Chennai, India

- Rapid progression from Software Engineering Intern (Jun-Aug 2023) to Product Manager (Aug-Oct 2023) to CTO
- Led development of AI music production assistant using natural language processing for DAW control
- Technical Achievement:** Implemented NLP system with 89% command accuracy using Python, FastAPI, and Reaper API
- Directed team operations, talent acquisition, and strategic decision-making as company grew

## Education

### Bachelor of Engineering in Computer Science

2020 – 2024

Visvesvaraya Technological University

Belagavi, India

- Final Grade: 8.59 CGPA - First Class with Distinction

## Technical Skills

**Languages:** Python (3 years), JavaScript/TypeScript (2 years), Rust (1 year), Java, C/C++

**Frameworks:** FastAPI, Nest.js, React, Flutter, Tauri, Next.js

**Databases:** MongoDB, Redis, MySQL, HBase

**Big Data:** Hadoop (HDFS, Hive, Sqoop, Pig), ETL, ASGI

**DevOps:** Docker, AWS EC2, Git, Linux

**AI/ML:** Neural Networks, NLP, Transformers, Computer Vision

## Featured Projects

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### SiBi — AI-Powered Recommendation Platform

Dec 2024 – Present

- Developed web crawlers processing 100K+ product pages monthly using neural networks and transformer models
- Engineered data pipelines for product specification analysis, review sentiment analysis, and feature extraction
- Implemented hybrid search and recommendation engine combining vector similarity and graph-based approaches
- Technologies: Scrapy, Selenium, Python, MongoDB, NLP, Transformers, Neural Networks

### YellowShuttl — Real-Time Fleet Tracking System

Jan 2024 – Jun 2024

- Architected real-time fleet tracking system with 0.25-0.5 second update frequency and 1-meter accuracy
- Implemented WebSocket-based location system optimized for battery efficiency
- Technologies: Nest.js, Redis, MongoDB, AWS EC2, Socket.io, Flutter, Dart, OpenStreetMaps, Firebase Cloud Messaging

### HeyDaw Copilot — AI Music Production Assistant

Jun 2023 – Feb 2024

- Created AI agent capable of operating a DAW with natural language commands
- Implemented cross-platform desktop application using Rust (Tauri), Next.js, Python (LangChain, FastAPI)
- Outcome: Reduced complex workflow setup time by 78% in usability testing

### Aura 2023 Website — Premier College Festival

Feb 2023 – Mar 2023

- Led a team to build a cutting-edge 3D website using Three.js, React, and TailwindCSS
- Built with MERN Stack and deployed on AWS EC2
- Successfully managed the website during the university festival
- URL: [aura-git.vercel.app](https://aura-git.vercel.app)

## Publications and Achievements

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**Publication:** "Enhancing Fleet Management Efficiency Through Real-Time Traffic Prediction: An HMM-Based Approach" - *Industrial Engineering Journal* ISSN: 0970-2555 (May 2024)

**First Place** in Paper Presentation (Cybersecurity) among 500 participants from 4 colleges - KLS Gogte Institute of Technology (Oct 2023)

**First Place** in Robotics Project Symposium at a regional technology fair, presenting innovations in robotized control systems - KLE College of Engineering (Jul 2022)

**Top 3 Finalist** in "Hackathon for Change" 40-hour hackathon with 17 hand-picked teams - Deshpande Startups (Sep 2022)

**Top 5 Finalist** in Srushti-2022 State-Level Ideation Competition with 52 teams participating - Visvesvaraya Technological University (Jul 2022)

**First Place** in "The Speaking Tree" and "Word Games" Oratory Competition at a national college festival with over 1500 participants - Symbiosis School of Law, Pune (Mar 2023)

## Personal Competencies

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**Languages:** English (C1), Spanish (A2), Hindi (Native), Marathi (Native), Kannada (Native)

**Leadership:** Team Management, Strategic Decision Making, Project Coordination

**Aptitudes:** Adaptability, Rapid Learning, Creative Problem Solving, Effective Communication