

Pranav Saji

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PROFESSIONAL SUMMARY

Versatile AI and Full-Stack Engineering professional with 8+ years of experience delivering end-to-end, high-impact software solutions across startups, enterprises, and consulting. **Expert in designing and deploying GenAI systems, architecting multi-cloud infrastructure (AWS, Azure, GCP), and leading cross-functional teams from concept to scale.** Proven success **building intelligent platforms for referral systems, lifestyle, real estate, healthcare, and genomics**—leveraging FastAPI, React, Next.js, Python, and cloud-native services **to drive efficiency, elevate user satisfaction, and deliver multimillion-dollar outcomes.** Adept at translating complex business goals into robust technical architectures, and **currently seeking full-time opportunities with mission-driven teams to create transformative, AI-powered products.**

EXPERIENCE

Machine Learning Consultant (Lead Engineer) - Contract - *LinkedIn*

Dec 2024 - Present

- **Leading** the design and implementation of a secure, end-to-end data pipeline in **Azure Databricks**, integrating inputs from **21** third-party applications across **50** environments, with key management via **Azure Key Vault**. The job runs daily, processing **millions** of records, while targeting one application per 2-week sprint for full pipeline build.
- Developing advanced security checks directly in **Adaptive Shield** and delivering validated results to enhance proactive threat detection and response.
- **Led the design and implementation of an AI agent** using **LangChain** to automate complex Jira-based InfoSec ticket triage for high-profile clients (Amazon, Google, Meta), achieving **90% accuracy vs. a 70% target** and delivering **2 quarters of time savings**.
- Developed 3 custom tools with **dynamic workflows based on request type**, deployed the solution in **Azure**, integrated **Azure Key Vault (KMS)** for secure credential handling, and used **LangSmith** for observability and monitoring.

Cofounder, CTO - *Referrio*

Feb 2025 - Aug 2025

- Architected and delivered an AI-powered dual-platform MVP (for referrers & recruiters) in **2 months - 66%** ahead of the planned 6-month timeline using **Next.js, Node.js, Python, Prisma, Docker, GCP**, with secure deployment via **Nginx** and **Cloudflare (WAF, CDN, SSL)**.
- Developed AI-driven candidate scoring and pros/cons analysis based on job descriptions, implemented real-time notification systems, and integrated Stripe for automated referral payouts.
- **Led** a 10-member cross-functional team, **supported** marketing and go-to-market strategy, and **drove** agile delivery cycles via CI/CD pipelines and product-led growth initiatives.

CTO, Head of Engineering, Founding Engineer - *BreatheIT*

Jul 2024 - Jul 2025

- Architected and launched a **first-of-its-kind** lifestyle wellness platform on **Android, iOS, and Web**, focused on holistic life improvement across **7 core disciplines**: Health, Finance, Personal Branding, Peace of Mind, Citizen Responsibility, Social Relationships, and Recreation. Features include AI-guided journaling, mood tracking, goal setting, challenges, a community hub, and an all-in-one organizer (tasks, notes, calendar, wishlist).
- Spearheaded ideation and technical design of multiple **Generative AI-powered features** including personalized **text, video, product, and service recommendations**, as well as real-time notifications and Stripe-integrated reward payouts—resulting in a **60% increase in user satisfaction** post-launch.
- Built “**Ask Yuva**”, a conversational GenAI chatbot that responds to lifestyle and wellness-related queries from users, leveraging user data to provide intelligent, contextual insights.
- Lead and scale a **15+ member cross-functional team** (frontend/backend/ML/QA/product/devops/design), built on a **microservice architecture** using **React Native, Node.js, PostgreSQL, GCP VMs, GCS, PM2, Nginx, and Cloudflare**; implemented **JWT-based auth**, and ensured full compliance with **GDPR, HIPAA**, and enterprise-grade security standards.

AI Consultant - Contract - *Syndicated Bio Inc.*

Nov 2024 - Jul 2025

- **Independently architected and developed 4 mission-critical platforms** (Site Registration, Hospital Portal, Admin Dashboard, Sponsor Portal) using Node.js, React, Docker, Kubernetes, and GCP VMs. Initially deployed on **GCP and Databricks for compute and data workflows**, then led a **strategic migration to AWS** to improve scalability, data security, and cost efficiency.
- **Delivered 70+ secure, production-grade workflows** for onboarding, compliance, and clinical study management using a **microservices architecture** with RBAC, JWT authentication, and full CI/CD automation.
- **Designed and implemented a HIPAA/GDPR-compliant Trusted Research Environment (TRE)** using **AWS Glue, Lambda, S3, KMS, Athena, SageMaker, and DynamoDB**, enabling safe and scalable research across government and private hospitals in Africa.

Founding Engineer - Contract - *FlairLabs Inc*

Sep 2024 - Nov 2024

- **Single-handedly built a full-stack GenAI-powered real estate platform** using **Flask and React**, enabling users to input natural queries like “5 bed 3 bath in SF with a pool in a good school district” and instantly retrieve matching properties along with detailed agent profiles.
- Engineered a full **GenAI-based workflow** that extracts property traits from natural language queries, dynamically **generates SQL**, and fetches **matching listings along with corresponding agent details** from Redfin/Zillow-scraped datasets—delivering real-time, accurate property recommendations.
- Integrated **RCS/SMS-based messaging capabilities**, allowing users to receive property insights and engage directly with agents via phone, enhancing responsiveness and user-agent interaction.

AI/ML Data Scientist - Contract - *LinkedIn*

Mar 2024 - Jun 2024

- Developed a RAG-based chatbot using Azure OpenAI and Azure AI Search, reducing document processing time by **83%** and saving **\$3 million** in operational costs. Aligned deployment with business goals through close stakeholder collaboration.
- Led full-stack integration with Azure Cognitive Search, Speech Services, and Log Analytics, increasing user engagement by **40%**, and optimized scalability with Azure Functions, React, and Blob Storage to handle **100,000+** daily requests efficiently.

Data Scientist - Contract - *Crewasis.ai*

Aug 2024 - Oct 2024

- Developed a GenAI-based solution that analyzes text and video data to extract key market insights for leading clients, including Fortune 500 companies. This solution empowered clients with actionable intelligence, driving impactful decision-making and enhancing market positioning.

Graduate Teaching Assistant - Part-time - *Illinois Institute of Technology*

Aug 2023 - May 2024

- Mentored over **500 students** in Advanced Database Organization and Computer Networks, helping them master core concepts and practical applications, resulting in improved academic performance and hands-on project success.

Machine Learning Analyst - Full-time – Deloitte**Nov 2020 - Jul 2022**

- Revolutionized credit card fraud detection for a **Fortune 500 bank** by leveraging Apache Kafka for real-time data ingestion, Apache Spark for distributed data processing, and XGBoost for model training, reducing false positives by **25%** and enabling real-time fraud detection.
- Transformed a semi-automated extraction tool into a full AI system using NLTK and TensorFlow's CNNs, increasing data extraction accuracy from **60% to 90%** for a **healthcare insurance** client. Reengineered the data architecture using Apache Airflow, boosting processing efficiency by **75%**, enabling faster and more reliable data handling.
- Spearheaded collaborative sessions with 15+ key stakeholders to align data science models with strategic business goals, resulting in seamless integration that improved operational efficiency across departments.

Software Developer - Contract - Freelancer**Jun 2017 - Oct 2020**

- Independently developed and delivered **end-to-end software solutions** for clients, including custom web applications, automation tools, and backend systems across diverse industries.
- Worked across the full technology stack, leveraging **Python, JavaScript, C++, Java, Flask, React, SQL**, and **REST APIs** to build scalable, client-focused solutions.
- Developed expertise in **full-stack development**, translating business requirements into technical products, and collaborating directly with clients to deliver impactful software.

SKILLS

- **Programming, Scripting & Full-Stack Development:** Python, JavaScript, TypeScript, SQL, C++, Java, Flask, FastAPI, React, Next.js, Node.js, HTML, CSS, REST APIs, GraphQL
- **ML & GenAI Algorithms:** Generative AI (LLMs, RAG, AI Agents, Prompt Engineering), Fine Tuning, Linear/Logistic Regression, Random Forest, XGBoost, SVM, PCA, Clustering, Convolutional Neural Networks(CNNs), MCP.
- **AI & ML Libraries:** TensorFlow, PyTorch, spaCy, Keras, Scikit-Learn, Pandas, NumPy, LangChain, LangSmith, Hugging Face, BERT, GPT, NLTK, CrewAI, OpenAI-Assistant
- **Data Science Techniques:** Feature Engineering, Exploratory Data Analysis (EDA), Data Cleaning & Transformation, A/B Testing, Statistical Modeling, Data Visualization, Time Series Analysis
- **Databases & ORMs:** PostgreSQL, MySQL, MongoDB, Milvus, Neo4j, Supabase, Snowflake, DynamoDB, Prisma
- **Big Data & Cloud Platforms:**
 - **AWS:** S3, EC2, KMS, Glue, Athena, Lambda, DynamoDB, SageMaker, Transfer Family
 - **GCP:** BigQuery, Cloud Storage, Firestore, Vertex AI, GCP VMs
 - **Azure:** Azure Databricks, Azure AI Search, Azure ML, Azure OpenAI, Azure Key Vault, Blob Storage.
 - **Databricks, Oracle**
- **Data Engineering & Processing:** Apache Spark, Kafka, AWS Glue, ETL Pipelines, PySpark, Athena, Apache Airflow, VCF Tools, Pseudo-Anonymization, PHI Redaction, SageMaker Integration, Data Cataloging
- **Integrations, Messaging & Payments:** Knock, Novu, RCS/SMS Integration, Stripe, API Gateway, OAuth
- **DevOps, Infrastructure & Security:** Git, GitLab CI, GitHub Actions, Jira, MLOps, CI/CD, Nginx, PM2, Unicorn, JWT Authentication, RBAC, IAM Roles & Policies, KMS, SSH, Firewall Configuration, Cloudflare, SFTP, Secure API Gateways, n8n
- **Testing & Quality Assurance:** Pytest, Playwright, Flake8, ESLint, Prettier, TSLint
- **Soft skills:** Leadership & Team Management, Problem-Solving, Strategic Thinking, Cross-Functional Collaboration, Communication & Stakeholder Management, Agile & Project Management, Analytical Thinking, Innovation-Driven Mindset, Startup Mentality, Wearing Multiple Hats, Thriving in Fast-Paced Environments, Adaptability, Product Thinking, Decision-Making, Ownership & Accountability

EDUCATION

Illinois Institute of Technology, Chicago

Master of Computer Science (Specialization in AI)

The International Institute of Information Technology, Bangalore, India

Executive Post Graduate Programme in Machine Learning & AI

Govt. Model Engineering College, Kochi, India

Bachelor of Technology in Electronics and Communication

CERTIFICATIONS

- **Microsoft Certified: Azure AI Engineer Associate**
- **Oracle - OCI Generative AI Professional Certification**
- **Azure Databricks Platform Architect Accreditation - Accreditation**
- **Databricks Academy Accreditation - Generative AI Fundamentals**
- **Databricks Fundamental Accreditation - Accreditation**
- **Career Essentials in Generative AI by Microsoft and LinkedIn**
- **Coursera MOOC by deeplearning.ai:** Neural Networks and Deep Learning, Improving Deep Neural Network: Hyperparameter tuning, Regularization and Optimization, Structuring Machine Learning Projects.