

Software Engineer and Data Analytics professional specialized in **NLP** and **Event-Driven Structural Modeling**. Expert in integrating LLMs (OpenAI, Hugging Face) and Graph Databases (Neo4j) to map complex relationships between industrial clusters and external trade partners. Currently developing frameworks for **Trade Resilience** within the European Union, utilizing multi-task learning to identify lead-lag relationships between policy shifts and physical supply chain disruptions.

## Areas of Expertise

- AI & Machine Learning Integration
- Data Collection & Analysis
- Agile Project Management
- Full-Stack Development (MERN, Java, Spring Boot)
- Data Engineering & ETL Pipelines
- Database Management (SQL, MongoDB, PostgreSQL)
- Project Planning & Delivery
- Cloud Deployment & Automation
- NLP & Sentiment Analysis
- REST API Development & Integration
- Cross-platform Application Development
- Search Engine Optimization

## Professional Experience

### Generative AI Developer

- **Biyn Enterprises Pvt. Limited (Co-Founder)**

**Remote**  
**April 2023 – present**

Lead the end-to-end development of AI-integrated MVPs and scalable web applications—using **React, Node.js, PostgreSQL**, and cloud technologies—while integrating **GPT** and **Hugging Face** models to deliver intelligent automation, client solutions, and proprietary tools like **VISION AI** and **Smart Grocery Assistant**.

#### Key Achievements:

- Built and deployed multiple AI-integrated MVPs and custom web solutions for clients across domains, focusing on user-centric design and scalable backend architecture.
- Delivered full-stack web applications using **React, Node.js, PostgreSQL, SQL**, and **RESTful APIs**—integrating AI tooling, automation, and scalability.
- Established Biyn-Enterprises as a development studio delivering both client solutions and experimental product MVPs aimed at commercialization

#### Responsibilities:

- Lead end-to-end product development across idea validation, system design, backend APIs, and frontend interfaces using the **MERN** stack and cloud tools.
- Integrated custom AI workflows using **OpenAI's, Gemini** and **Llama GPT API** and **Hugging Face** models, enhancing business logic with intelligent automation.
- Consulted with clients to build tailored web apps and dashboards, while continuously experimenting with proprietary products under Biyn-Enterprises.

### Robotics Mentor

- **Steam Academy Pvt. Limited**

**Dublin, Ireland**  
**Aug 2024 - April 2025**

#### Promoted to Mentor Team Lead (Feb 2025)

As a **Robotics Mentor**, I empowered diverse student teams through hands-on programming, algorithm training, and personalized mentorship—guiding them in building innovative robots for competitions like **RoboJam** while fostering critical thinking, collaboration, and a passion for **STEAM** innovation.

#### Key Achievements:

- Mentored and guided a diverse group of students, "Next Gen Pros (NGPs)," fostering critical thinking and problem-solving skills in the fields of robotics and engineering.
- Actively contributed to the **RoboJam** competition by guiding students as they collaboratively built innovative robots to solve real-world challenges, enhancing their hands-on technical and problem-solving skills.

#### Responsibilities:

- Inspire curiosity and passion for innovation in **STEAM** by combining theoretical knowledge with hands-on robotics, teaching programming and algorithms, and preparing students for challenges like **RoboJam**.
- Provide personalized mentorship and foster a collaborative, inclusive environment to develop each learner's technical, analytical, and teamwork skills, empowering them as future tech leaders.

### Teacher for Software Development

- **Codekul Pvt. Limited**

**Pune, India**  
**Aug 2022 - Jan 2023**

As a **Software Development Instructor**, I trained and mentored students in technologies like **React, Node.js**, and **SQL**, leading to a **200% increase** in hiring rates and successful delivery of custom apps for company partners. I also conducted workshops and certification-focused courses, equipping students with real-world, industry-ready skills.

### Full Stack Developer

- **AppyStack Pvt Limited**

**Pune, India**  
**April 2022 - April 2023**

As a **Full-stack Developer** and **Team Lead** at **AppyStack**, I developed reusable **React** libraries, a **no-code** dynamic reporting system, and client-focused applications cutting labor costs while leading a team to deliver scalable web solutions using **React, Node.js**, and **PostgreSQL** databases, and driving a reduction in testing and deployment time through effective client engagement and mentorship.

### Key Achievements:

- Built custom libraries and React packages that were reused over multiple other projects, greatly reducing labor costs and development time for building these applications.
- Built a NO-CODE Dynamic Reporting System for hospitals' billing systems, which greatly reduced labor costs for our company by 300%. Built a scheduling and management app for our clients. These applications provided clients with profitability by increasing customer and data retention.
- As a team lead, I took the initiative to ensure customer satisfaction by understanding the needs of the client individually and translating them into actionable tasks for my team members. This led to a 70% reduction in the time taken for testing and deployment.

### Responsibilities:

- Consult with the business to understand their infrastructure requirements for application UI/UX and database architecture.
- Build custom web applications for our clients using frontend and backend technologies like SQL databases, React, and Node.js.
- Lead and mentor team members by providing training and upskilling opportunities in emerging technologies and IT processes.

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## Thesis and Projects

**Thesis: Comparative Analysis of Deep Learning vs. Traditional Models for Sentiment Analysis** - Dublin Business School, Dublin, Ireland:

- Designed and implemented scalable NLP pipelines to analyze Twitter data, focusing on sentiment classification and emotion detection.
- Developed and tested NLP models using Python and R, Pytorch, TensorFlow, and Scikit-learn, comparing traditional ML algorithms with deep learning models like ANN, RNN, and LSTM. Applied BoW/TF-IDF, cross-validation, and SGD to extract features and optimize performance, delivering insights from real-time sentiment analysis.

**Banking Data Warehouse** - Dublin Business School, Dublin, Ireland:

- Designed a relational database and data warehouse for a simulated banking system, implementing ETL pipelines with SSIS and creating analytics-ready star schemas.
- Built dashboards using Tableau and SSRS to visualize financial KPIs, ensuring data quality, normalization, and audit-compliant practices aligned with industry standards.

### Personal Investment Portfolio Management

- Automated data ingestion of 10-K filings and news using custom Python scripts to identify high-intrinsic-value opportunities.
- Achieved a 15% CAGR over 3 years by managing a long-term equity portfolio based on Value Investing principles.

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## Education

**MSc Data Analytics | 2024**

**Dublin Business School, Dublin, Ireland**

**Bachelor in Computer Science | 2021**

**Vishwakarma University, Pune, India**

**Exchange Student for Bachelor in Computer Science | 2020**

**Hof University, Hof, Germany**

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## Professional Certifications

- **Credential of Readiness (Business Analytics, Financial Accounting and Economics for Managers)** | Harvard Business School
- **Money Coach and Befriender** | Christian Against Poverty

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## Technical Proficiencies

- **Machine Learning & NLP:** R – program, Python, Pandas, NumPy, Keras, Tokenization, Fine-tuning, PyTorch, TensorFlow, Hugging Face.
- **Generative AI:** LLM Integration (OpenAI, Gemini, Llama), Text Summarization, Predictive Features.
- **Data Engineering:** ETL Pipelines, Star Schema, SQL (PostgreSQL, MySQL), NoSQL (MongoDB), Spark, SSIS.
- **Full-Stack & DevOps:** Node.js, Python (FastAPI), Java, JavaScript, TypeScript, React, Vue, AWS, Azure, CI/CD, Git.
- **Analytics & Reporting:** Tableau, Power BI, SSRS, Technical Documentation, Stakeholder Communication.
- **Others:** Figma, Data Analyst, Machine Learning, Deep Learning, No-Code development, API Integrations,

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## Interests and Other Activities

### Volunteering:

- **Lab Lead, (FaithTech):** Building technology tools and securing partnerships for impactful nonprofit digital solutions.
- **Treasurer (Meri Asha):** Overseeing financial strategy and stewardship for community empowerment programs. .
- **Money Coach and Befriender (Christians against Poverty):** Providing financial education and money management coaching.

**Hobbies:** Playing Music (Guitar, Piano), Garden Landscaping, Travelling, and Camping.

**Languages:** English (Native/Professional); German (Goethe A1 Certified).

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## References

*Available on Request*