Abhi Tyagi

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Professional Summary

Software Developer with 1.8 years of experience in AI/ML, Backend, and Full-Stack development. Specialized in building scalable applications using Node.js, Python, and modern web frameworks. Proficient in developing and deploying AI/ML models, optimizing APIs, and leading projects from concept to completion. Passionate about automation, data-driven decision-making, and innovative tech solutions.

Technical Skills

Backend Technologies: Node.Js, Express.Js, Python (FastAPI, Django REST Framework, Flask), PHP (CI/Core), REST APIs

 $\label{eq:Frontend Development: HTML5, CSS3, JavaScript, React.Js, Bootstrap, jQuery, EJS$

Databases: MySQL, PostgreSQL, MongoDB

Version Control & Tools: Git , Github, Visual Studio Code , PyCharm , Anaconda, Jupyter Notebook, Postman **DevOps & Cloud**: AWS (EC2, S3), Linux, Nginx

AI/ML & NLP: Machine Learning, Deep Learning, Generative AI, NLP (Spacy, NLTK), Transformers, LLM APIs (OpenAI, LLaMA, Hugging Face, LangChain), Model Deployment (TorchServe, TensorFlow Serving)

Experience

Austere Systems Limited – Gurugram

 $Software \ Developer$

- Developing and optimizing full-stack applications using Node.js, Python (Django, FastAPI), and modern frontend frameworks.
- Architected and deployed AI-driven solutions, integrating LLM APIs (OpenAI, Llama), NLP models, and automation pipelines to enhance software capabilities.
- Built and optimized **RESTful APIs and microservices**, improving system efficiency and reducing response time by 40%.
- Implemented AI-powered transcription, summarization, and facial recognition solutions, reducing manual processing time by 90%.
- Led database design and optimization for scalable applications using **MySQL**, **PostgreSQL**, ensuring high availability and performance.
- Enhanced system reliability by designing **asynchronous processing pipelines**, improving task execution efficiency for large-scale data operations.
- Collaborated with cross-functional teams and stakeholders to define project requirements, align technical solutions with business objectives, and ensure successful product delivery.
- Mentored junior developers, conducted code reviews, and enforced best coding practices to maintain software quality and scalability.

Projects

Python Projects

- AI-Powered Multimodal Translator | *Python, OpenAI Whisper, FastAPI, Generative AI* Mar 2025 Present * Engineered a full-stack web application capable of processing audio, video, and document files, supporting
 - transcription, translation, and summarization in 99+ languages with 85% accuracy.
 * Integrated OpenAI Whisper for high-accuracy transcription, Python-based translation pipelines, and large language models (LLMs) to automate structured multilingual summaries achieving a 90% reduction in manual
 - language models (LLMs) to automate structured, multilingual summaries, achieving a 90% reduction in manual workload.
 * Designed and optimized a scalable backend using FastAPI, achieving a 70% improvement in multilingual
 - * Designed and optimized a scalable backend using **FastAPI**, achieving a 70% improvement in multilingual processing speed through enhanced text extraction and efficient resource management.

• Algorithmic Trading System | Python, REST API, WebSocket

- * Developed an AI-driven algorithmic trading system for stock derivatives, executing trades with **<50ms latency** using real-time market data via **REST APIs** and **WebSockets**.
- * Implemented an optimized trading strategy, achieving a 70% success rate in volatile market conditions and improving execution efficiency by 85%.
- * Automated trade execution and risk management workflows, reducing manual intervention by **90%** and enhancing decision-making accuracy.
- Creative Rentals | Python, LLM, Django Rest Framework, PostgreSQL

Jan 2025 – Present

Sep 2023 - Present Sep 2023 - Present

- * Built an AI-based solution for movie production houses to generate **detailed scene elements** (locations, characters, props) based on input scenarios, streamlining creative workflows.
- * Fine-tuned an open-source **LLM** with domain-specific movie datasets, increasing accuracy in scenario-based content generation.
- * Designed and deployed scalable backend architecture with **REST APIs**, ensuring seamless communication between AI models and frontend applications.
- Automated Invoice Processing System | Python, OCR, Django Rest Framework, React Feb 2024 Apr 2024
 - * Developed a web-based **OCR-powered billing system** to automate invoice processing, reducing manual data entry by **80%**.
 - * Optimized text extraction and classification, storing structured data in PostgreSQL for **real-time retrieval and analytics**.
 - * Integrated an interactive **React frontend** for data validation, real-time editing, and PDF export, enhancing operational efficiency.

Full Stack Projects

- ASHRAM | React, Node.js, MySQL
 - * Developed a web-based monitoring system for schools and hostels, improving operational efficiency by 65% through automated fund distribution, amenities tracking, and role-based access control.
 - * Implemented **RESTful APIs** for seamless communication between headquarters and hostels, reducing response time for notices, circulars, and program updates by **50%**.
 - * Optimized MySQL database architecture to enable **real-time updates** and efficient retrieval of school and hostel data, enhancing data accuracy by **70%**.
- Haryana Police Transfer System | React, Node.js, Python
 - * Automated the police personnel transfer process, reducing **manual workload by 70%** with an **Excel bulk upload system** and Python-based optimization logic.
 - * Developed a **data-driven Python script** for personnel analysis and transfer assignments, improving decision accuracy by **60%** and reducing errors.
 - * Created an intuitive React-based frontend, reducing **administrative processing time by 50%** through an interactive results dashboard.
- Gram Panchayat Development Plan (GPDP) | React, Node.js, MySQL, Python Jul 2024 Sep 2024
 - * Built a web portal to digitize the GPDP process, increasing monitoring and implementation efficiency by 60%.
 - * Developed key modules for user management, citizen voting, data uploading, scheduling, and attendance tracking, ensuring real-time engagement of over 100+ stakeholders.
 - * Implemented an **AI-powered analytical dashboard** with **MIS reporting**, enhancing strategic planning and project monitoring efficiency by 40%.

PHP Projects

- Funds Disbursement and Management System (FDMS) | PHP, Python, MySQL Sep 2023 Dec 2024
 - * Developed **interactive dashboards** for fund allocation, vendor payments, and financial tracking, improving financial oversight and transparency by **70%**.
 - * Implemented **automated workflows** for estimate submission, approval, payment processing, and utilization certificate filing, reducing manual workload by 60%.
 - * Integrated **AI-driven financial analytics** and a chatbot for transaction summarization, enabling **real-time anomaly detection** and enhancing decision-making efficiency by **50%**.
- Election Monitoring System (EMS) | PHP (Core), Python, MySQL
 - * Developed real-time dashboards for election tracking, integrating automated data import via Excel and Python-based attendance monitoring, improving accuracy by 80%.
 - * Implemented social media monitoring and WhatsApp outreach to enhance voter engagement, increasing campaign reach by 40%.
 - * Built an **incident management system** for real-time issue reporting and resolution, ensuring electoral transparency and reducing response time by **50%**.

Education

College Of Engineering Roorkee, Roorkee

Bachelor of Technology in Computer Science & Engineering

Internships

Web Development Internship | SO INFOTECH Pvt. Ltd

August 2019 – August 2023 GPA: 7.8/10

Dec 2023 – Jan 2025

Jan 2022 - Apr 2022

Jun 2020 – Aug 2020

Apr 2024 – Jun 2024

May 2024 – Jul 2024