Alok Ranjan

Graduate Trainee Engineer | AI & Data Science Enthusiast | Full-Stack Developer
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SUMMARY

Motivated and adaptable Software Engineer with a strong foundation in full-stack development, data structures and system design, and API Integration. Eager to tackle real-world challenges by building scalable, cloud-enabled, business-driven digital solutions using agile methodologies, while continuously learning in a dynamic tech environment.

EDUCATION

Bachelor of Technology – Computer Science & Engineering 2021-2025 | Punjab, India
Punjab Technical University (IKGPTU) | CGPA: 7.67/10

Intermediate – Science 2018-2020 | Bihar, India
DKC Residential Public School | *CBSE* | 67.6%

Matriculation 2017-2018 | Bihar, India
Pragya Punj Public School | *CBSE* | 83.8%

PROFESSIONAL EXPERIENCE

1. Artificial Intelligence Intern 08/2025 – 10/2025 | Bengaluru, Karnataka (Remote)
Infosys

- Engineered a dual-modal AI diagnostic system using **PyTorch**, **Transformers**, and **Scikit-learn**, achieving **94%** accuracy in disease classification; this system performs both text-based (NLP) and image-based (CV) detection to provide immediate diagnoses.
- Developed a full-stack, end-to-end application by building a **Python (FastAPI)** backend and a responsive **React.js** frontend, delivering real-time diagnoses in **seconds** and improving model inference time by **30%**.

2. Data Science & Analytics Intern 07/2024 – 09/2024 | Bangaluru, India
Zidio Development Pvt. Ltd.

- Leveraged Python libraries (Pandas, NumPy, Matplotlib, Scikit-learn, XGBoost) for comprehensive data analysis and predictive modeling, achieving 85% accuracy on classification tasks, boosting business decisions by 25%, and reducing data processing time by 30%.
- Created interactive dashboards with Power BI and Tableau, enabling real-time KPI monitoring and improving stakeholder decision-making efficiency.

PROJECTS

1. Plant Doc - AI Plant Disease Detection System

- Engineered a dual-modal diagnostic AI system, using **PyTorch**, **Transformers**, and **Scikit-learn** to perform both text-based (NLP) and image-based (CV) analysis, achieving **94% accuracy** in disease classification.
- Deployed the AI models via a high-performance **Python (FastAPI)** backend, optimizing the inference pipeline to reduce model size by **25%** and deliver real-time diagnoses under **2 seconds**.
- Developed a full-stack, responsive application using **React.js (Vite)** and **Tailwind CSS** to present **diagnoses, confidence scores**, and **actionable treatment recommendations**, providing **critical decision support** to gardeners and farmers.

2. Customer Segmentation Analysis

- **Performed customer segmentation** on **50,000+ records** using **Python, Pandas, NumPy, and Scikit-learn**, improving data quality through preprocessing and reducing noise for better model performance.
- **Applied K-Means and Hierarchical Clustering**, achieving **85% accuracy** and enhancing segmentation precision by **25%**, enabling more effective customer targeting.
- Deployed the model on a **Flask web app** and **visualized insights,** with **Matplotlib** & **Seaborn**, delivering actionable results that increased customer retention by **15%**.

3. AI Resume Analyzer

- **Developed** an **AI-powered Resume Analysis Platform** using **React, React Router, TypeScript, Zustand, and Puter.js**, enabling seamless **authentication**, secure **resume upload/storage**, and **serverless database integration**.
- **Implemented** intelligent **job–resume matching** with **AI evaluations** to generate **ATS scores** and **custom feedback** tailored to job listings, improving **candidate-job alignment**.
- **Designed and deployed** a **responsive, reusable UI** with **Tailwind CSS** and **shadcn/ui**, ensuring **cross-device compatibility**, **modern user experience**, and **scalable component architecture**.

SKILLS

- **Programming & Concepts:** Python, C++, DSA, OOP, Basic System Design
- **Web Stack:** React.js, Node.js, Next.js, Tailwind CSS, Git, RESTful APIs, Postman
- **Databases & Tools:** MySQL, MongoDB, Power BI, Tableau, Google Cloud, Excel, VS Code, GitHub, Jupyter Notebook, PowerPoint
- **Data & ML:** Pandas, NumPy, Matplotlib, Scikit-learn, TensorFlow
- **Professional Strengths:** Problem Solving, Teamwork, Communication, Debugging, Time Management

CERTIFICATIONS

- AI Primer & Generative AI – *Infosys*
- Data Science & Analytics Internship – *Zidio Development Pvt. Ltd.*
- Machine Learning with Python – 6 weeks *summer Training – NIELIT Haridwar*
- React – *Top performer in 6 weeks Training – Internshala*