Kalpana Kushwaha

Software Engineer | Machine Learning | Data Analytics | Full-Stack Development

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EDUCATION

– **KIET Group of Institutions, Ghaziabad, Uttar Pradesh** *(8.36 CGPA) 2021-2025*
B.Tech, Computer Science & Information Technology
– **Kendriya Vidyalaya Vigyan Vihar, New Delhi, Delhi** 12th CBSE *(95%) 2020-2021*

PROJECTS

NeuroNotes – Smart Notes App with NLP *(Ongoing)*
– Built a full-stack notes app with summarization (DistilBART), keyword tagging (KeyBERT), and semantic search.
– Integrated Markdown rendering, PDF export, dark mode, and a scalable FastAPI backend.
Tech stack: React, FastAPI, Hugging Face, KeyBERT, SQLite, MUI. 🔗 GitHub

Brain Tumor Detection using Pre-Processing Techniques *(Dec 2023–Mar 2024)*
– Applied denoising techniques (TV, BM3D, NLM) on MRI scans and implemented CNN, SVM, and MobileNetV2 models.
– Developed a stacked ensemble model that outperformed individual classifiers in tumor classification accuracy.
– Co-authored a Scopus-indexed research paper and published a patent.
Tech stack: Python, OpenCV, TensorFlow. 🔗 GitHub

Employee Attrition Prediction Dashboard *(Apr 2024)*
– Built a predictive dashboard using logistic regression to estimate attrition risk based on HR data.
– Deployed with Shiny: real-time prediction, ROC/AUC evaluation, and dynamic plotting by user-selected variables.
– Handled end-to-end pipeline: data cleaning, feature selection, model training, and web app integration.
Tech stack: R, Shiny, caret, ggplot2, pROC. 🔗 GitHub

CERTIFICATIONS & COURSES

– Career Essentials in Generative AI – Microsoft & LinkedIn (2025) 🔗 link
– AWS Academy Cloud Foundations (2024) 🔗 link
– Career Essentials in Data Analysis - Microsoft and LinkedIn (2024) 🔗 link
– NPTEL: AI- Search Methods for Problem Solving (2024) 🔗 link

INTERNSHIP & EXPERIENCE

Freelance Frontend Developer – Life Coach Website *(Jan 2025 - Present)*
– Developed a responsive coaching website for a real client using modern frontend technologies.
– Built modular UI components with dynamic client-side routing, a testimonial carousel, and mobile-first styling.
– Integrated EmailJS for a working contact form and added downloadable PDFs for user engagement.
Tech stack: React, Vite, React Router, CSS, EmailJS

AICTE CISCO Virtual Internship Program 2024 *(July 2024)*
– Completed a 1-month virtual internship focused on cybersecurity essentials and Cisco Packet Tracer simulations.
– Gained hands-on experience in network protocols, threat detection, and secure configurations.
Tech stack: Cybersecurity, Cisco Packet Tracer

TECHNICAL SKILLS

– **Languages:** Python, Java, C, R, SQL, HTML, CSS, JavaScript
– **Frameworks & Libraries:** React.js, Pandas, NumPy, FastAPI, TensorFlow
– **Tools & Platforms:** Git, GitHub, Power BI, VS Code, RStudio, Shiny
– **Domains & Technologies:** Machine Learning, Data Analytics, Web Development

ACHIEVEMENTS

– Co-author, Scopus-indexed paper on early brain tumor detection (Taylor & Francis, Oct 2024)

– ***Patent Published***: "Tumor Trace System for Tracking Tumors with AI", Application No. 202511031522 A, *April 2025*