Pankaj Suthar

Software Development Engineer

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EDUCATION

Degree	Institute/Board	CGPA/Percentage	Year
Bachelor of Technology	Electrical Engineering, IIT, Ropar	7.08	2020-2024
Senior Secondary	Central Board of Secondary Education	94.40%	2020
Secondary	Central Board of Secondary Education	93.20%	2018

WORK EXPERIENCE

- **NIMS Lab, Dalhousie University, Canada** *May 2023 - July 2023*
  MITACS Summer Research Intern Halifax, Nova Scotia, Canada
  – Worked on 2-month research internship with **Dr. Nur Zincir Heywood** and **Dr. Riyad Alshammari** at Dalhousie University, Canada, focusing on traffic analysis of **Instant Messaging Applications** (IMA).
  – Analysed application traffic using Wireshark, tcpdump, and Android Studio, resulting in improved knowledge of network performance using **Python and Javascript** scripts for automation of traffic analysis process.

- **Golden sparrow LLC, San Francisco, USA** *Feb 2024 - Jan 2025*
  Software Engineer - Freelance Remote
  – Worked closely with the **Director** to ensure a successful deployment of the Appscripts leading **15%** more efficient system.
  – Worked on **Employee Tracker Application** for more than 100 employees working at Golden Sparrow LLC using Appsheet.
  – Developed a full Enterprise Mobility Management solution to manage company owned devices for enterprises helping to manage 200+ drivers working for different enterprises. Managed systems from testing to deployment. Link - **DSP-MDM**
  – Automated the documentation of **Claim form (US govt.)** using data from Google sheets using Appscripts. Developed an app to download individual pdfs for more than **350** drivers in single click. Removed **80%** manual intervention
  – **(Google Appscript, Javascript)** app for scheduling of drivers according to FMCSA DoT compliance rules by **US Govt**.
  – Delivered application at high pace to check compliance of drivers rosters for Fremont and Tracy (CA, USA).
  – Upgraded websites for **BlueJay Delivery**, **Magic Wheel** and **Golden Sparrow** using JavaScript, EmailJS, HTML, CSS.

- **PalsAnalytix - Learning Platform** *Oct 2024 - March 2025*
  Freelance Software Developer / Full Stack Developer Remote
  – Architected enterprise-grade **MERN stack** learning platform with **React.js**, **Node.js**, **MongoDB**, **Express.js**, integrating **Twilio OTP** verification, **JWT** authentication, **Razorpay**, and **Redux** state management for financial exam preparation
  – Independently **owned and delivered the end-to-end product lifecycle** — from **frontend architecture** and **backend APIs** to **domain setup, SSL-secured deployment, and production hosting** — launching a fully live **7-page platform (palsanalytix.com)** with **role-based Admin/User systems**, real-time exam attempts, dynamic question delivery, and complete **CRUD workflows**; engineered **20+ reusable React components** with scalable **Redux** state management and **TailwindCSS**-driven design

- **Academic Manager OCFP - K12** *April 2025 - current*
  Physics , Mathematics Faculty Jaipur, India
  – Mentoring **K–12 students in Physics and Mathematics**, fostering **analytical problem-solving**, conceptual clarity, and **independent thinking** through structured guidance and inquiry-driven learning

PROJECTS

- **SDE Freelance projects**
  Google Appscripts, JavaScript, ReactJs, NodeJs, Firebase, MongoDB
  – **Driver Scheduling App :** Developed an efficient driver scheduling application, ensuring compliance with FMCSA DOT regulations by the US Govn, using **NodeJs, JavaScript, Appscript, OOPs** leading **20%** increase in compliance management.
  – **Automated PDF Filling Solution:** Robust solution in **JavaScript, Nodejs, OOPs** to fill & download PDFs using data from Google Sheets. Automated the completion of a complex US Government form for the Employer's Report of Occupational Injury or Illness, filling **30+** fields per form and facilitating efficient data management,decreased **80%** manual intervention.
  – **DSP-EMM Enterprise Solution :** Architected full-stack React.js dashboard with Node.js backend, TailwindCSS, Firebase Authentication, and Firestore NoSQL database for Android Enterprise Mobile Management (EMM), achieving 30% faster device onboarding through automated token generation and streamlined workflows deployed on cloud platforms.

- **Trademark Counterfeit Detection | Full Stack ML Product (In Progress)** ○ **GitHub**
  Python, ML Similarity Algorithms, NLP, Streamlit, Scalable Systems
  – Built a **full-stack trademark counterfeit detection platform** to identify potential **trademark infringement in India** using official government trademark data
  – Designing and integrating **text and semantic similarity algorithms** including **TF-IDF**, **Cosine Similarity**, **Levenshtein Distance**, and **Embedding-based models (SBERT)** to generate **similarity scores** and infringement risk signals

SKILLS

- **Programming Languages and Frameworks**: C/C++, HTML, CSS, Javascript, Java, React.js, Node.js, Express.js, MongoDB (MERN stack), Multi AI agent framework(Crewai, Langraph) Aws services-EC2, S3,bedrock-agents, knowledge based multi ai agents, kinesis, Frontend-Streamlit

- **Tools, Softwares and soft skills**: Git, Github, VS Code, Google AppScripts, Object Oriented Programming (OOPs), Database Management System (DBMS) , System Design and Architecture, Operating System (OS) , OO Languages, CI/CD Pipelines, NPM, MySQL, PostgreSQL Communication, Innovative solutions, Presentation Skills

ACHIEVEMENTS/CERTIFICATES

- **NTSE Scholar**, Ranked among top 90 students in Stage 1 in Haryana and top 1000 students in Stage 2 in India. *2018*
- **JEE Mains & Advanced**, 99.63 percentile in JEE Mains, top 6% among 160K students in JEE Advanced. *2020*
- **Inter-IIT Weightlifting -**, Represented IIT Ropar in Inter-IIT 2022 held at IIT Roorkee in weightlifting event. *2022*
- **Best Player - Powerlifting (Weighlifitng)**, Awarded as best Powerlifter of IIT Ropar. *2022*