Shailendra Shukla

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Objective

Aspiring Software Development Engineer passionate about building scalable and efficient solutions. Seeking Internship and full-time opportunities in software engineering, full-stack development. Actively exploring AI, IoT, Deep Learning to broaden technical impact and innovation.

Education

Indian Institute of Information Technology, Senapati, Manipur November 2022 - June 2026
Bachelor of Technology in Electronics and Communication Engineering ***CPI: 8.07/10***
Little Flower School, Harraiya, Basti, Uttar Pradesh June 2019 – June 2021
High School (10th): **92.4%** — *Higher Secondary (12th):* **81.4%**

Coursework

Data Structures, Design & Analysis of Algorithms, Object-Oriented Programming, Operating Systems, Internet of Things, Database Management Systems, Computer Organization & Architecture, Communication Networks, Fundamentals of Artificial Intelligence, Fundamentals of Deep Learning

Projects

Guidely – Full-Stack Platform Connecting Guides with Potential Learners guidely-edu.vercel.app
- Built a scalable mentorship platform using **React (Vite)**, **Tailwind CSS**, and **Node.js (Express)** with role-based auth.
- Implemented real-time booking logic, availability management, session scheduling, and secure sign-up/sign-in.
- Integrated **Razorpay** for seamless payment processing and created dashboards with dynamic service management ops.
- Utilized protected routes, session tokens, and custom middleware to enforce role-based access and secure API endpoints.

ScribbleNSense – AI-Powered Visual and Math Problem Solver scribble-n-sense.vercel.app
- Built a full-stack app using **React (Vite)** frontend and **FastAPI** backend to process handwritten inputs from HTML canvas, enabling problem-solving.
- Used **Gemini Vision API** for base64 image classification, **MathJax** for LaTeX rendering, and created a **draggable UI** for viewing stepwise solutions.
- Implemented async FastAPI routes, CORS, PIL-based image decoding; planned **OpenCV** handwriting preprocessing for improved OCR and accuracy.

Experience

PhysicsWallah Private Limited June 2024 – Present
Full Stack Web Development Intern *tummy-smiles.vercel.app*

- Developed MERN-stack food donation app with role-based dashboards for Donor-Agent-Admin coordination, GPS-based agent assignment, media uploads, and Leaflet route mapping.
- Secured access using JWT auth, bcrypt-hashed passwords, token refresh logic, protected routes, and session middleware to ensure safe and scalable user authentication.
- Built real-time chat support via Socket.io with media sharing,Contact support ticketing Tracking; designed dashboards with live donation stats, analytics, agent metrics, and dynamic chart visuals.

Indian Institute of Technology Ropar, Punjab June 2024 – July 2024
Summer Research Intern, Communication Research Laboratory

- Developed and simulated advanced Medium Access Control (MAC) protocols, including a novel CSMA/CA-based protocol tailored for Next Gen Wireless Communication, with enhanced collision handling mechanisms using C++ and MATLAB.
- Engineered an Instantaneous Channel Quality-Aware MAC protocol leveraging Rayleigh fading to adaptively manage node movement during data transmission, improving communication reliability.
- Conducted comprehensive performance evaluations comparing theoretical and simulated Bit Error Rates (BER) across AWGN and Rayleigh-fading simulated wireless channel environments. Utilized C++ and simulation tools to validate protocol functionality and analyze performance, contributing to refinement of wireless communication strategies.

Skills

Languages: C/C++, JavaScript (ES6+), Python, MATLAB, SQL, HDL, LaTeX

Web & Frameworks: React, Node.js, Express.js, MongoDB, HTML5,Tailwind CSS, REST APIs

Tools & DevOps: Git, GitHub, Postman, VS Code, Shell Scripting, Netlify, Render, Vercel

Other Skills: Cadence Design Tools, Arduino, Nmap, Matlab, Team Collaboration, Problem Solving

Certifications

Full Stack Web Dev – PW Skills	IoT – IIT Kharagpur	Deep Learning – IIT Kharagpur
AI – IIT Guwahati	Arduino, Git, Perl – IIT Bombay	