Akhilesh Chaurasiya

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Summary: I'm a Software Engineer with over 2.5 years of experience in full stack development and system-level programming. I have strong proficiency in C/C++ (C++11/14/17) for building high-performance, multithreaded applications on Linux systems, leveraging Boost libraries and low-level IPC mechanisms. On the backend, I specialize in .NET Core, EF Core, and PostgreSQL to develop scalable RESTful APIs, along with real-time communication systems using SignalR and WebSockets. I've implemented secure authentication and authorization using JWT and SSO, and integrated third-party services like Zoom API. On the frontend, I've worked with HTML, CSS, JavaScript, React.js, and Vue.js to build responsive, interactive interfaces. Additionally, I have hands-on experience with network protocols (TCP/IP, ARP, TLS, HTTP, SSH) and AWS services including IAM, EC2, S3, SES, and SNS—enabling me to deliver robust solutions across the entire technology stack.

I can join immediately.

Education:

Motilal Nehru National Institute of Technology (NIT), Allahabad

July 2017 - May 2021

Bachelor of Technology - Computer Science and Engineering

Professional Experiences:

Planys Technologies Pvt Ltd, Chennai

July 2024 – February 2025

Assistant Software Engineer

- Enhanced an underwater robotics system by implementing inter-process communication (IPC) using Boost.Interprocess shared memory
 for high-efficiency data exchange across modules.
- Integrated serial-based sensors (e.g., altimeter, GPS) using Boost.Asio and Linux system APIs, supporting both synchronous and asynchronous data communication.
- Built a low-latency, WebSocket-based communication layer enabling real-time data transfer between the command module and ROV, ensuring reliable remote operation.
- Designed a structured logging system for live sensor data and integrated joystick input using a vendor SDK, focusing on performance, thread safety, and modular system architecture.

Promact Infotech Pvt Ltd, Pune

March 2022 - June 2023

Software Engineer I

- Built modular backend services with ASP.NET Core and Entity Framework Core, including user management, messaging, notification scheduling, and meeting coordination.
- Developed a real-time chat system using SignalR with role-based group communication and secured APIs/WebSocket connections via JWT authentication and authorization.
- Integrated Zoom API for seamless in-app video conferencing with scheduling, joining, and meeting management capabilities.
- Designed and implemented scalable notification services using ASP.NET Core background workers, delivering email alerts via AWS SES
 and real-time web bell notifications for messages and appointment updates.

DeltaX, Bengaluru

August 2021 - February 2022

Full Stack Developer Intern

- Developed a responsive music player using Vue.js, HTML5, CSS3, and JavaScript, featuring play, pause, seek, volume control, and playlist management with a smooth, component-based UI.
- Built a secure RESTful API with ASP.NET Core and SQL Server to handle music metadata, user playlists, and playback history, integrating the Web Audio API for high-quality audio playback.

Technical Skills:

- Languages: C/C++, C#, Python, Core Java, JavaScript, TypeScript, HTML5, CSS3, SQL, Bash, PowerShell, Git.
- Platforms & Tools: AWS (EC2, IAM, S3, SNS, SES), Docker, Kubernetes (basic), Postman, Jenkins (CI/CD), GitHub, Bitbucket, TDD, BDD, Agile, Scrum, ChatGPT, Gemini AI, OpenAI API.
- Frameworks & Libraries: C++ Standard Library, Boost.Asio, Boost.Beast, Linux System APIs, ASP.NET Core, Abp.io, Entity Framework Core, React.js, Redux, Ping-cpp (GitHub), PostgreSQL, MySQL, SQL Server.
- Core Concepts: Robotics, System Design, Microservices Architecture, RESTful APIs, Real-time Communication, Multithreading &
 Concurrency, Data Structures & Algorithms, SOLID Principles, Design Patterns, Object-Oriented Programming, Networking Protocols
 (TCP/IP, ARP, TLS, HTTP, WebSocket, SSH), Operating Systems, Database Management Systems, Cloud Computing, AI & Machine
 Learning Concepts.
- Operating Systems: Linux/Unix (Ubuntu, CentOS), Windows.

Pond Volume Estimation System Project:

- Developed a complete system to calculate pond water volume by integrating GPS data with Ping sonar depth readings on a Remotely Operated Vehicle (ROV).
- Designed and implemented a real-time backend to log geospatial and depth data, transmitting it via WebSockets for live monitoring and HTTP for historical access.
- Built an interactive React.js map interface with offline tiling support to visualize the ROV's path and depth data in real time.
- Improved system performance by optimizing data processing and communication logic, resulting in a 10% efficiency gain and reduced CPU usage compared to the previous implementation.

Achievements:

- Competitive Programming: Solved 500+ problems on LeetCode, emphasizing pen-and-paper problem-solving. <u>LeetCode Profile</u>
- Academic Excellence: Secured an All India Rank of ~10,000 in JEE Advanced (top ~0.8%) and ~18,000 in JEE Main (top ~1.5%) out of 1.2 million candidates in 2017.
- Scholastic Honors: Ranked first in college in both 10th and 12th grade board examinations.