Tarun Nahak

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Software engineer with excellent problem solving and ability to perform well in a team.

SKILLS

PROGRAMMING

Languages:
• Advance: Go lang, Typescript, Javascript, Python, Rust
• Intermediate: C++, Java, Kotlin

Infrastructure as Code:
• Terraform • Ansible • Kubernetes • Docker • AWS • Azure

Tools:
• Github Action • azure Devops • Gitlab CI/CD • Linux • Mac

Framework and Library:
• Go Gin • Go Fiber • Express.js • React.js • Vue.js • Spring boot • Django • ktor

Technologies:
• PostgresSQL • Redis • Kafka • MongoDB • RabbitMQ • Azure Service Bus • PBS (HPC scheduler)

AI & Agentic:
• Google ADK • AI Agents • Agentic Workflows • MCP • LLM • RAG

OTHERS

• Teaching & Mentoring
• Contributed to 10+ Opensource projects

EDUCATION

IIT BHILAI

Executive M.Tech in Artificial Intelligence
July 2026 – Present | Part-time

MRITS, HYDERABAD

Affiliated to JNTUH, B.Tech in Computer Science & Engineering
Grad. July 2021 | CGPA 7.49

D.A.V PUBLIC SCHOOL

PCM With Computer Science
June 2017 | Cum.Per 71.8%

LINKS

Website:// tarunnahak
Github:// nahaktarun
Leetcode:// tarunnahak
Medium:// nahaktarun

EXPERIENCE

SIEMENS DIGITAL INDUSTRIES SOFTWARE | Software Engineer (HPC Developer)

March 2026 – Present | Bangalore, IN

- Developing **Windows remote desktop** delivery for **PBS**-scheduled **HPC** workloads in **C++, Rust, Go and Python**, implementing both **CPU- and GPU-based decoding** paths to improve frame throughput and reduce latency.
- Architecting **service migrations using agentic workflows**, using AI agents to analyse services, plan migration steps and carry out repetitive refactoring.
- Architecting **micro-frontend** interfaces in **React.js and Vue.js**, letting teams ship and deploy UI modules independently within one application shell.
- Built an **MCP (Model Context Protocol) based diagnosis tool** for remote desktop sessions, enabling faster root-cause analysis of session, codec and connectivity failures.
- Provisioning infrastructure as code with **Terraform and Ansible** on **Kubernetes** for repeatable HPC service deployments.
- Diagnosed and resolved **critical production bugs** across the remote desktop stack, improving session stability for enterprise HPC users.

MERCEDES-BENZ RESEARCH AND DEVELOPMENT INDIA | Senior Software Engineer

Oct 2023 – March 2026 | Bangalore, IN

- Led cross-functional teams of up to **7 engineers** under an **Agile SAFe framework** to design and deliver scalable cloud-native solutions, improving platform throughput by 35% and reducing project timelines by 20%.
- Architected and deployed event-driven microservices using **Go**, **Kotlin**, **Rust**, **Python (Django)** and **Kafka**, reducing processing latency by 40%.
- Drove **end-to-end migration of legacy services** to **Go** and **Kotlin** with zero-downtime cutovers, improving maintainability and performance.
- Engineered high-performance web applications in **Go (Golang)** and **Kotlin** achieving 99.9% uptime and improving server response times by 20%.
- Architected and integrated scalable **microservices** within a distributed system, enhancing platform efficiency by 30% and reducing processing times by 25%, with RESTful APIs on **Gin and Gorilla Mux**.
- Designed and deployed an **LLM-powered question-answering service** with intelligent context reuse, enhancing accuracy for repeat queries by 50%.
- Built and integrated a **recommendation engine** leveraging semantic search and embeddings, improving content discovery and user engagement.
- Built reusable UI components in **React.js** and **Vue.js** with **Pinia, typescript**, reducing front-end development time by 15%.
- Strengthened **MB.OS** platform capabilities through component integration, and implemented **AI/ML-driven models** for user self-assessment features that increased engagement by 15%.
- Drove adoption of best practices in CI/CD pipelines (**GitHub Actions, Azure DevOps**), cutting deployment time from hours to under 15 minutes.
- Collaborated **internationally** with on-site work in **Germany**, coordinating with cross-functional teams on global initiatives and platform standards.

COURSES

GRADUATE

Analysis and Design of algorithms
Object oriented programming
Software Engineering
Advanced Data Structure
System Design principles
Computer Networks
Artificial Intelligence
Machine Learning

CERTIFICATION

Crio's Certified Product Developer
Agile SaFe for Team certified

PUBLICATIONS

PROFICIENT IN MODERN JAVASCRIPT WITH LEARN BY DOING Link | GumRoad MarketPlace
Jan 1, 2023

LEADERSHIP & MENTORSHIP

GEEKS FOR GEEKS | MERN STACK MENTOR
Oct 2022 – Oct 2023 | Remote

- Helping students and working professionals to get better at problem solving, coding and system design.

GROWING STARS | Educator
Oct 2021 – Oct 2022 | Remote

- Taught 100+ Students all across The united states. Taken 250+ hrs of sessions on Python, JavaScript Programming & Data Structure and algorithms.

EXPERIENCE CONTD.

TATA CONSULTANCY SERVICES | Assistant System Engineer
Aug 2021 – Sept 2023 | Hyderabad, IN

- Developed and maintained web applications using **Go (Golang), Java (Spring boot)** as part of a full-stack development team, contributing to robust back-end solutions and front-end enhancements.
- Built **RESTful and GRPC** APIs using frameworks such as **Gin and Express.js**, providing reliable and efficient data access across application modules.
- Optimized application performance through **code optimization** and debugging, supporting scalable architecture to handle increasing user traffic.
- Followed modern micro frontend best practices including **component-driven development, clean architecture, and design system alignment**.
- Participated in **code reviews, architectural discussions, and technical design sessions**, contributing to continuous improvement and engineering excellence.

PRAGYAA LLC | AI Software engineer (Internship)
June 2021 – Aug 2021 | Remote CA, United States

- Developed and maintained full-stack web applications using **Django and TypeScript**, ensuring high performance and scalability across **LegalGraph's** product suite.
- Collaborated with cross-functional teams to design and deliver complex features such as **RAG (Retrieval-Augmented Generation) service, token deduction, authentication protocols, and payment processing**, enhancing platform security and functionality.
- Optimized application performance by identifying and resolving bottlenecks, increasing load capacity by 20% to support a growing user base.
- Implemented and integrated various **machine learning models, including LLM (Large Language Models)**, to support advanced analytics and data-driven insights within the platform.

PROJECT WORK

Flight Booking system (micro services) | Link | Full Stack | (React.js, Node JS, MongoDB, Express JS, RabbitMQ, Docker, AWS)
Jan 2022 - Dec 2022 | Remote

- Developed a secure **Authentication Service** with **user registration and login functionality, utilizing JWT** for token-based authentication to protect user data.
- Architect an **API Gateway** to enable seamless integration and centralized access to multiple services, improving data flow across the system.
- Built a **Booking Service** to handle **flight reservations and payment** processing, providing a streamlined user experience from booking to payment confirmation.
- Implemented a **Search Service** for **fast, accurate flight searches**, enhancing the system's usability with optimized search algorithms.
- Utilized **RabbitMQ** as the message broker to enable asynchronous, reliable communication between microservices, ensuring high availability and fault tolerance.
- Deployed on **AWS**, leveraging cloud infrastructure to create a scalable and resilient **Flight Booking System** capable of handling high user demand and dynamic scaling.

AWARDS

2024 Gold Medal of excellence By Mercedes Benz Research and development India
2024 Bronze Medal of excellence By Mercedes Benz Research and development India
2020 Technical Head of CSI (Computer society of India)
2018 7^{th}/150 Hackerrank college Coding Competition