Tejas Sunil Gumgaonkar

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Software Engineer with 2+ years of enterprise-level full-stack development experience specializing in C#, .NET Framework, ASP.NET Core and Microsoft SQL Server. Proven expertise in designing scalable web applications, RESTful API design & development, and performance optimization. Strong background in Azure DevOps, CI/CD pipelines, and Agile methodologies with demonstrated ability to improve application performance and deliver high-quality software solutions. Seeking a **Software Engineer** position.

SKILLS

- **Programming Languages:** C#, TypeScript, JavaScript, C++, Python, PHP.
- **Web Tech:** ASP.NET Core, .NET Core, .NET, Web API, React.js, Node.js, Express.js, jQuery, HTML5, Bootstrap, Tailwind.
- **Database Technologies:** Microsoft SQL Server, Entity Framework Core, LINQ, ADO.NET, MongoDB, MySQL, Redis.
- **Cloud & DevOps:** Azure DevOps, Azure (Functions, TFS), AWS (Lambda, S3, EC2), Git, GitHub, Docker, n8n.
- **Testing & QA:** Unit Testing, Postman, Automated API Testing, Vulnerability Assessments, CMake.
- **AI/ML:** TensorFlow, NumPy, Pandas, Matplotlib, Deep Learning, scikit-learn, RAG, LLM Integration**.**
- **Development Tech:** Cursor, GitHub Copilot, Visual Studio, SDLC Protocols, NuGet Package Management, npm.

WORK EXPERIENCE

Research Assistant, California State University, Fresno ***Oct 2025 – Present***

- Contributing to research on non-invasive brain-computer interfaces using electroencephalography (EEG) technology.
- Developing GUI for experimental paradigms using Unity game engine supporting neuroscience research applications.

Software Engineer, **Persistent Systems Limited** **July 2021 – Aug 2023**

- Designed, maintained efficient & reusable code following Object Oriented Programming principles and MVC design patterns for API development supporting health critical insurance operations using C#, ASP.NET, .NET Core, and Web APIs.
- Optimized 25+ SQL stored procedures using MS SQL Server, Entity Framework and ADO.NET with data modeling techniques for enhanced efficiency.
- Improved critical API response time by 2.8s through performance optimization, MVC & event driven architecture implementation.
- Led comprehensive security assessment (VAPT), resolving 50+ vulnerabilities in production systems ensuring compliance.
- Developed and consumed RESTful Web APIs with JSON and XML data processing capabilities.
- Orchestrated deployment across 4 environments using CI/CD pipelines and DevOps following Agile/Scrum methodologies.
- Implemented comprehensive testing strategies including unit testing and automated API testing using industry best practices
- Utilized Visual Studio, Azure DevOps, and Team Foundation Server (TFS) for version control following SDLC protocols.
- Successfully managed 22+ change requests independently, demonstrating full-stack development capabilities.
- Participated in code reviews and contributed to team engineering standards in distributed team environment.

***Software Engineering Intern*, Persistent System Limited** **Jan 2021 - July 2021**

- Developed secure web applications with Token-Based Authentication using C# and ASP.NET Web APIs.
- Implemented MVC architecture for responsive applications using ASP.NET MVC, Entity Framework, and SQL Server.
- Performed comprehensive testing and defect management using Postman and Azure DevOps.

EDUCATION

California State University, Fresno **Aug 2025**
Master of Science, Computer Science *Fresno, CA*

GH Raisoni College of Engineering (GHRCE) – RTMNU **May 2021**
Bachelor of Engineering, Computer Science Engineering *Nagpur, IN*

ACADEMIC & PERSONAL PROJECTS

TeamLabs - Project Management Platform

- Built full-stack application using MERN Stack and Next.js with modern TypeScript implementation.
- Implemented RESTful APIs with JWT authentication, real-time task tracking, and role-based access control.
- Completed database design using MongoDB following MVC pattern.
- Integrated AI with RAG using Gemini-AI SDK & LLM models for intelligent project report generation and automated insights.
- Applied Agile/Scrum methodologies with iterative code reviews and created technical documentation for API integration.

Research Project - Node.js Event Loop Efficiency Enhancement **Jan 2025 – Aug 2025**

- Architected high-performance adaptive event batching system in C++ for Node.js LibUV, achieving 27.3% reduction in CPU utilization and 35.2% improvement in high-concurrency scenarios with 10,000+ concurrent events.
- Engineered custom Hybrid Queue-Map data structure in C++ with O(1) operations, reducing context switching overhead by 42.1% and eliminating system crashes under extreme loads.
- Optimized event processing through adaptive batch sizing (20-75 events) and dynamic interval tuning (25-100ms), improving throughput by 38.2% and reducing response times by 12.4%.
- Reduced memory allocation operations by 23.5%, decreased peak memory usage by 8.6%, and eliminated 94.7% of "dead emit" occurrences through intelligent event batching.
- Designed comprehensive performance testing framework using Autocannon across multiple traffic patterns, collecting metrics on CPU, memory, response times, and system stability.
- Tech Stack: **C++**(primary), LibUV, CMake, Node.js v22.12.1, JavaScript, Autocannon, Python, scikit-learn, Git.

Tic Tac Toe Q-Learning vs Deep Q Network

- Designed and implemented ML models for Q-Learning and Deep Q Network using Python, TensorFlow, and CUDA, applying OOP and modular design patterns for strategic gameplay AI agents.
- Conducted performance analysis across 960,000+ training episodes with multiple hyperparameter configurations using GPU-accelerated computing. Created performance visualizations and technical documentation using Matplotlib and Pandas to identify optimal configurations.