

BIGYA BAJRACHARYA

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TN, USA (Open to relocation)

PROFESSIONAL SUMMARY

Software Engineer with **5+ years** of experience leveraging **React, TypeScript, Node.js, Python, and AI-powered solutions** to build scalable, high-impact web applications. Proven ability to **optimize frontend performance, accelerate development cycles, and integrate cutting-edge AI models**. Passionate about delivering **intelligent, efficient, and user-friendly** applications that drive **business success**, I don't just build products—I make them **smarter, faster, and more user-focused**.

EXPERIENCE

East Tennessee State University

May 2024 - Present

Full-Stack Developer

Tennessee, USA

- Led the development of the frontend architecture and transcription system for an AI-powered archival platform using React, Python, Whisper, and TensorFlow, enhancing research accessibility by 200%.
- Engineered NLP & LLM-driven solutions, achieving 95% transcription accuracy & 79% classification accuracy, enabling automated data processing and actionable insights.

Fusemachines Inc.

Aug 2020 - Aug 2022

Software Engineer, Full Stack

New York, USA

- Redesigned a legacy codebase into a scalable microservices architecture, reducing feature release cycles by 40% and enabling faster, more efficient deployments.
- Owned full SDLC execution for an enterprise education platform, eliminating development bottlenecks by 25% and ensuring on-time project delivery.
- Optimized GraphQL and RESTful APIs, reducing API response times by 30%, improving backend efficiency and user interaction speeds.
- Automated CI/CD workflows using Docker, GitHub Actions, and Jenkins, decreasing deployment overhead by 45%, enabling rapid iteration in a competitive market.
- Provided mentorship and technical leadership, supporting engineering team growth through onboarding, code reviews, and agile implementations.

Citytech

Jun 2019 - Aug 2020

Software Engineer, Full Stack

Kathmandu, Nepal

- Developed key components of a fintech platform handling \$10M+ in monthly remittances, ensuring secure transactions and high availability.
- Boosted UI performance by 30%, leveraging optimized state management and React/Redux enhancements.
- Implemented an automated Jest/Enzyme-based testing infrastructure, reducing production bugs by 40%, improving overall software reliability.
- Led cross-functional collaboration between frontend, backend, and DevOps teams to improve scalability.

Freelance

Jan 2019 - Jul 2022

Full Stack Engineer

Remote

- Independently led full-cycle development of several projects, handling both product management and technical implementation, ensuring alignment between business needs and engineering execution.
- Designed and built working prototypes for early-stage startups, contributing to successful funding rounds.

- Owned stakeholder communication, translating complex business requirements into scalable technical solutions.
- Achieved an 80% client retention rate by combining strong leadership, independent problem-solving, and effective collaboration, delivering high-value products on schedule.

EDUCATION

East Tennessee State University
Master's, Computer Science (AI & ML)

Aug 2022 - May 2024
GPA: 3.97

St. Xavier's College, Tribhuvan University
Bachelor's, Computer Science

Aug 2014 - Dec 2018
GPA: 3.7

TECHNICAL SKILLS

- **Programming:** JavaScript, TypeScript, Python, Java, C/C++
- **Frontend:** React.js, Next.js, Redux.js, TypeScript, Tailwind CSS, HTML5/CSS3, UI/UX Optimization, Performance Optimization, Accessibility
- **Backend:** Node.js, Express.js, Django, REST APIs, GraphQL, Microservices
- **Databases:** PostgreSQL, MongoDB, MySQL, Redis, Firebase, NoSQL
- **Cloud & DevOps:** AWS, Docker, Kubernetes, GitHub Actions, Jenkins, CI/CD Pipelines
- **Testing & Agile:** Jest, Selenium, Enzyme, TDD, Agile, SDLC, JIRA, Confluence
- **AI & Data Science:** NLP, LLMs, TensorFlow, PyTorch, scikit-learn, Pandas, NumPy
- **Data Visualization:** Plotly, D3.js, Matplotlib, Tableau

PROJECTS

AI-Driven Archival Platform | *React, Python, Whisper, AWS, NLP*

- Led the frontend architecture and engineered NLP-driven search and content classification models to enhance retrieval efficiency, improving research accessibility by 200%.

College Admission & Academic Management System | *React, Redux, Node.js, PostgreSQL*

- Developed a scalable education platform, serving 60,000+ users with 99% uptime, ensuring seamless enrollment and academic operations.
- Led the frontend architecture, improving state management and performance, enhancing student and administrator experience.

AI-Enhanced Talent Platform | *React, Node.js, TypeScript, GraphQL, AWS, D3.js*

- Developed several full-stack components for the platform, collaborating with cross-functional teams.
- Improved API performance by 30% through GraphQL optimization and caching strategies.
- Built interactive dashboards and candidate search functionalities, enhancing user experience and engagement.

CERTIFICATIONS

- Software Engineer Certificate – HackerRank (Oct 2024)
- SQL (Advanced) Certificate – HackerRank (Sep 2024)
- The Nuts and Bolts of Machine Learning – Google (May 2024)
- Career Essentials in Sustainable Tech – Microsoft (Mar 2024)