BIPIN KALAKHETI

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Portfolio — GitHub

EDUCATION

Centennial College Sep. 2022 – Apr. 2024

Software Engineering Technician Diploma — GPA: 3.8

Toronto, ON

- Core Focus: Advanced Data Structures, Algorithms, System Design, Full-Stack Development, and Software Testing
- Led 4+ team projects using Agile/Scrum methodologies, consistently achieving A+ grades in software development courses

PROFESSIONAL EXPERIENCE

Quantum Infosys Pvt. Ltd.

Jun. 2021 - Jun. 2022

Junior Web Developer

Biratnagar, Nepal

- Engineered responsive web applications for school management and ERP systems using React.js and Node.js, improving user experience for 1000+ daily active users
- Implemented RESTful APIs and database integrations using SQL and NoSQL, reducing data retrieval time by 40%
- Collaborated in an Agile team of 5 developers to deliver features on time while maintaining code quality standards

TECHNICAL SKILLS

Languages: TypeScript, JavaScript (ES6+), Python, Java, C/C++, SQL, HTML5, CSS3

Frontend: React.js, Next.js, Redux, Context API, Tailwind CSS, Material-UI, Framer Motion, WebSocket **Backend**: Node.js, Express.js, RESTful APIs, MongoDB, Firebase, Prisma, Authentication (JWT, Clerk)

Cloud & DevOps: AWS, Vercel, Firebase (Auth, Hosting, Storage), MongoDB Atlas, CI/CD, Git

Development Tools: Git, VS Code, Postman, npm/yarn, ESLint, Webpack, Vite, Chrome DevTools

Core Concepts: Data Structures, Algorithms, System Design, OOP, Microservices, Test-Driven Development

PROJECTS

Brain Archive | Next.js, TypeScript, OpenAI, Convex, Clerk | Live | GitHub

2024

- Architected a scalable document management system utilizing OpenAI embeddings for AI-powered vector search
- Implemented real-time collaboration with role-based access control using Convex backend, handling 100+ concurrent users
- Designed responsive UI with Tailwind CSS and Framer Motion, achieving 95% mobile responsiveness score

PathViz | React, TypeScript, Algorithms | Live | GitHub

2024

- Developed an interactive algorithm visualizer implementing Dijkstra's, A*, BFS, and DFS with custom animations
- Engineered efficient state management using custom hooks and context providers for optimal performance
- Optimized grid rendering performance using React's virtual DOM and memoization, handling 50x50 grid sizes

KhajaGhar | *MERN Stack, Microservices* | Live | GitHub

2023

- Built a full-stack food ordering platform using microservices architecture & MongoDB for data persistence
- Implemented comprehensive error handling and monitoring in Express.js backend, achieving 99.9% uptime
- Developed secure user authentication system using Firebase, protecting sensitive user data and transactions

GuffGaff | React, Firebase, WebSocket | Live | GitHub

2023

- Created a real-time chat application with WebSocket integration, handling 1000+ messages per minute
- Integrated Firebase for authentication and optimized performance, reducing load time by 40%
- Implemented error boundaries and performance optimization, reducing load time by 40%