Yuvraj Singh

Bhubaneswar, Odisha — 8810873483 — zyvuraj53@gmail.com — linkedin.com — github.com/zyuvraj53 — Portfolio

Summary — Computer Science and Engineering student with expertise in **AI/ML, Full-Stack Development, Cloud Computing, Secure Development**. Passionate about **data-driven applications, predictive modeling, secure architectures, and scalable automation**. Proven ability to **optimize AI pipelines, and build high-performance applications**.

Skills

Web Dev	React.JS, Next.JS, Redux, Express.JS, MongoDB, PostgreSQL, Redis, FireBase, SupaBase, Docker, JIRA	**OS and Tech**	Debian, BSD, Arch, Git, GitLab, GitHub
		Machine Learning	TensorFlow, PyTorch, Numpy, Pandas, Time-Series Modelling, Data Mining
Languages	C, C++, Java, JavaScript, TypeScript, Python, Rust, Go, SQL, Bash, Haskell, Lua	**Soft Skills**	Leadership, Analytical Thinking, Team Collaboration, Communication

Experience

Odisha Potli (odishapotli.com)   **Feb 2025 - March 2025**
Full-Stack Developer (Freelance)

Client-Side Development

– **Page Load Time Reduced by 50%**: Optimized assets, lazy-loaded images, and minified CSS/JS reduced the initial page load from 4s to 2s.
– **Decreased Bounce Rate**: Improved page responsiveness and mobile-first design led to better retention, decreasing bounce rating by 45%.
– **SEO Score Improved**: Structured HTML, optimized metadata, and better Core Web Vitals pushed rankings higher improving SEO score by 45%.

Server-Side Development

– **API Response Time Reduced by 60%**: Optimized database queries, and reduced payload size, bringing response times from 500ms to 200ms.
– Optimized database performance through indexing and query tuning techniques
– **Query Execution Time Improved by 50%**: Indexed frequently queried fields and optimized MongoDB/Mongoose queries.

Konnexions IT Society   **Feb 2023 – Apr 2024**
FrontEnd Developer

– As a **web developer** at **Konnexions**, I played a key role in designing, developing, and optimizing our society's website—turning it into a fast, scalable, and user-friendly platform!
– **Enhanced UI/UX by 35%**: Designed a clean, modern, and interactive interface for a seamless user experience.
– **Screened Assessed Candidates**: Evaluated technical skills, problem-solving abilities, and UI/UX expertise.

Projects

Inventory Management System (FullStack App)

– **100% Type-Safe Codebase**: Used TypeScript to eliminate runtime errors and enhance maintainability.
– **Optimized for Mobile Desktop**: Achieved 100% responsive design with Tailwind CSS and server-side rendering (SSR).
– **Real-Time Inventory Updates**: Integrated WebSockets for instant stock updates across multiple users.

Burst Time Optimization using RNNs (Published Research)

– **Created an AI-based CPU scheduling optimizer**, reducing process latency by 35%.
– **Published research in peer-reviewed AI journals**, contributing to advancements in CPU scheduling optimization.

Student Dropout Prediction (Published Research)

– **Designed a student retention prediction model** using **XGBoost, MLP, and Decision Trees**, achieving **96% accuracy**.
– **Published research in an Springer conference**, advancing AI in education technology.

Education

KIIT University   **9.3 CGPA**
Bachelor of Science in Computer Science Engineering
Minors: AI/ML Specialization

Higher Secondary - Sunbeam Academy, Samneghat   **89.4%**

High School - St. John's School, B.L.W.   **92.4%**