

Mutasim Fuad Rimu

Kushtia, Khulna, Bangladesh | [+8801915159977](tel:+8801915159977) | rimux0x@proton.me [Portfolio](#) | [GitHub](#) | [LinkedIn](#)

Professional Summary

Senior Full-Stack & AI Research Engineer with over 4 years of experience building high-performance web applications, scalable backend architectures, and intelligent deep learning systems. Specialized in React, Next.js, TypeScript, Python, and PyTorch, with a strong emphasis on frontend performance optimization, API design, and system latency reduction.

Versatile React Developer and Full-Stack & AI Research Engineer with extensive experience architecting scalable, high-performance web applications and intelligent systems. Proficient in React, Next.js, Remix, TypeScript, Python, and PyTorch, with a specialized focus on optimizing frontend performance, engineering REST/WebSocket APIs, and minimizing system latency. Proven track record of delivering secure, enterprise-grade software solutions, conducting cutting-edge deep learning research, and driving effective cross-functional team collaboration in Agile environments.

Technical Skills

- **Languages:** TypeScript, JavaScript (ES6+), Python, Java, Go, C#, Rust, HTML5, CSS3.
- **Frameworks & Libraries:** React, Next.js, Remix, Redux, Zustand, Tailwind CSS, GSAP, Framer Motion, shadcn/ui, FastAPI, ASP.NET Core, Laravel.
- **Backend & Architecture:** Node.js, REST APIs, WebSockets, Microservices, System Architecture, Design Patterns, Data Structures & Algorithms.
- **Databases & DevOps:** PostgreSQL, MySQL, MongoDB, Redis, Docker, Kubernetes, AWS, Infrastructure as Code (IaC), CI/CD, Nginx, Git.
- **AI & Tools:** PyTorch, TensorFlow, Computer Vision (CNNs), Scikit-learn, Pandas, NumPy, Claude Code, Cursor, Agentic Workflows, SDLC, Tauri, Debugging.

Professional Experience

Full-Stack & AI Research Engineer | Cybersecurity & AI Lab - Changchun, China

Sept 2024 – Present

- Engineered a 1D-ResNet model in PyTorch for FDD physical layer cryptographic key generation, applying strong problem solving and adaptability during Agile research sprints to reduce latency by 30%.
- Applied L1-Norm optimization, cutting Raw Bit Error Rate (BER) to 0.02%. Implemented Interleaved Subcarrier Mapping, increasing secret key generation rates by 35%.
- Collaborated closely in cross-functional research teams, mentoring junior researchers on deep learning workflows and code review best practices.

React Developer & Consultant - Shanghai, China (Remote/Hybrid)

Jan 2022 – Present

- Engineered scalable web applications with Node.js, React, Remix, Next.js, and Zustand, leveraging design patterns to optimize SQL/MongoDB query execution and frontend render performance by 40% across 50,000+ active users.
- Facilitated storymap sessions and leveraged strong communication skills to explain technical designs and agent output to stakeholders; wrote comprehensive documentation to streamline Agile workflows and boost user conversion by 20%.
- Fostered seamless teamwork across distributed engineering squads, guiding junior frontend developers in adopting state management patterns and clean architecture standards.

React Developer - Creaqtech

Remote | Oct 2024 - June 2025

- Developed enterprise-grade React applications utilizing Redux Toolkit and Next.js, improving REST API response times by 25% and scaling system throughput to handle 100k daily API requests.

Frontend Developer Intern - Wuxi De-Tech

Onsite | Jan 2024 - June 2024

- As a recent university graduate, write clean front-end code and implement technical SEO optimizations, improving Google PageSpeed scores from 72 to 94 rather than relying on legacy templates.

Selected Technical Projects

[Aether](#) | Tauri v2, Rust, React, TypeScript

- Engineered a cross-platform system utility in Rust (Tokio) and React with UX Design considerations to monitor real-time network speeds, achieving sub-10ms latency and reducing RAM consumption below 15MB.
- Designed a unified package manager supporting 6 Linux distributions, Homebrew, and Windows Registry, accelerating maintenance workflows by 50%.

[ClipDude](#) | Tauri v2, Rust, React, TypeScript

- Engineered a lightweight clipboard manager leveraging native OS APIs to persist clipboard history, cutting application startup time to under 100ms.
- Implemented instant fuzzy search across 10,000+ entries with zero-latency recall (<5ms response time).
- Automated cross-platform binary builds and Vercel deployments via a GitHub Actions CI/CD pipeline, reducing release cycle times by 80%.

[Self-Destructing Secure Text Share](#) | Remix, React, Redux, TypeScript, REST APIs, MongoDB, Snowflake, Redis, Vercel

- Architected an encrypted text-sharing platform using Next.js, Remix, and Redis; enforced AES-256 encryption, rate-limiting, and auto-purging while maintaining sub-50ms API request latency.
- [Secure Real-Time Chat System](#) | Next.js, React, TypeScript, REST APIs, WebSockets, ElysiaJS, Redis, Vercel

- Architected a real-time messaging platform with user-centric UX Design using WebSockets, Next.js, and ElysiaJS deployed on Vercel, delivering sub-millisecond message propagation across 10,000+ concurrent connections.

AI-Powered Disease Detector (FastAPI, React, TensorFlow, Snowflake, Vercel)

- Deployed a PyTorch CNN model via FastAPI with AsyncIO, delivering real-time image diagnostics in under 120ms with 98.4% classification accuracy.

Education

M.Sc. in Computer Application Technology | Changchun University of Science and Technology (CUST) - CGPA: 3.8/4.0 (Ranked #1)

- *Thesis: "Deep learning-based physical layer key generation in FDD systems"*

B.Sc. in Computer Science and Technology | Nanjing University of Information Science and Technology (NUIST) - Graduated with Distinction

Awards & Honors

- Academic Excellence Award (1st Place), CUST (2024).
- "Eye of Foreigners" Innovation Award (Runner-up), Jilin.

Research & Publications

- "Deep learning-based physical layer key generation in FDD systems" - Researched Physical Layer Security using Residual Networks, reducing bit error rates to near zero.
- Key Research Focus: Channel Reciprocity in FDD, 6G IoT Security, and Sparse Feature Representation.