Rahul Shamkuwar

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EDUCATION

- **University of Colorado Boulder** — Boulder, CO
  Bachelor of Science in Computer Science; GPA: 3.94 — *Fall 2022 – Fall 2024*
- **University of Illinois Urbana-Champaign** — Urbana-Champaign, IL
  Bachelor of Science in Aerospace Engineering; GPA: 3.46 — *Fall 2020 – Spring 2022*

SKILLS

- **Languages**: Typescript, JavaScript, HCL, HTML, CSS, Python, C/C++, Scala, Dart, C#, Java, SQL, NoSQL.
- **Technologies**: Node.js, Nest.js, React, Next.js, React Native, Flutter, Tailwind, Swagger, Postman, pandas, NumPy, JupyterLab, Scikit-Learn, PyTorch, Optuna, TensorFlow, Keras, Jest.
- **Tools**: AWS, OCI, Terraform, Kubernetes, Docker, GitHub Actions, Git, ESLint, Prisma, Firebase, Jira.
- **Knowledge**: Linux, CI/CD, UI/UX, Cyberbotics: Webots, VMWare, VirtualBox, Data Science, Agile.

EXPERIENCE

- **Blueprint** — Boulder, CO
  Infrastructure Lead and Software Engineer — *January 2023 - Present*
    - **AWS Amplify Deployment**: Spearheaded the deployment of Blueprint's website on AWS Amplify, optimizing its scalability, reliability, and performance, resulting in a robust and highly available web infrastructure.
    - **SSL and Domains**: Implemented SSL certificates and configured domain settings, enhancing the website's security and trustworthiness, resulting in improved user confidence and SEO rankings.
    - **Gatsby to Next.js Migration**: Led successful migration of a Gatsby.js project to a Next.js framework, improving website performance and scalability while ensuring a seamless user experience.
    - **SQL Migration**: Designed, developed, and executed a migration script using MySQL to transition from legacy to a new database schema, demonstrating deep technical expertise and attention to detail.
    - **End-to-End Testing**: Managed end-to-end testing and validation of migration process, effectively ensuring data integrity, minimal downtime, and zero data loss during the transition.

- **Trimble Cloud** — Boulder, CO
  Software Engineer — *September 2023 - May 2024*
    - **Dashboard Development**: Led the design and development of a dashboard website for monitoring emission metrics from AWS and Azure services, collaborating closely with a 6-person team.
    - **Cloud Architecture**: Crafted and deployed a multi-service cloud infrastructure using Terraform, enhancing operational scalability.
    - **State Management Setup**: Initiated and managed the remote Terraform state file setup using AWS S3 and DynamoDB.
    - **Security and Load Balancing**: Integrated ELB with OpenID for security and efficient load management.

- **Skillsprint** — Boulder, CO
  Founding Software Engineer — *November 2022 - January 2023*
    - **Advanced Authentication Development**: Engineered a robust authentication system using JWT tokens and Nest.js route guards, significantly bolstering application security and ensuring secure user access.
    - **Technological Integration Mastery**: Successfully integrated and optimized diverse tech stack (Prisma, Swagger, Prettier, PostgreSQL) for efficient backend service.
    - **CI/CD**: Implemented GitHub Actions to automate testing and cloud deployment, streamlining the CD pipeline to Vercel for frontend and AWS EC2 for backend services, enhancing development agility and reliability.

- **ACM@UIUC** — Urbana-Champaign, IL
  Chair of SIG Mobile — *May 2021 - May 2022*
    - **Mobile App Development Leadership**: Led and participated in full-stack development of a mobile app using Flutter for the frontend and Express for the backend.
    - **Cutting-Edge Website Development**: Pioneered the design and development of a dynamic and responsive website for SIGMobile, harnessing the power of Nuxt.js 3 to elevate the club's online presence and accessibility.
    - **Knowledge Sharing and Skill Enhancement**: Fostered continuous learning through organizing and leading Flutter educational sessions, enabling club members to enhance coding skills and adopt industry best practices.

PROJECTS

- **HackCU 2024 Winner**: Secured 1st place at the 24-hour HackCU 2024 competition by developing a mobile app using Expo and React Native, designed to incentivize lecture attendance through a fantasy football-style bracket system among friends, awarding points for class participation.
- **HackCU 2023 Runner Up**: Engineered a Chess-Street Fighter-inspired Unity game in just 24 hours, showcasing adaptability and creativity.