

# PREET SHAH

 Preetshah

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## Relevant Skills

Languages: *TypeScript, Python, PHP, Java, C++, Go, SQL, HTML, CSS*

Frameworks & Libraries: *React, Next.js, Express, GraphQL, Apollo, Django, Flask*

Cloud & DevOps: *AWS (AppSync, Lambda, Fargate, ECS, EC2, S3, DynamoDB, CloudFront, API Gateway, OpenSearch), GCP (BigQuery, Cloud Storage), Docker, Terraform*

Databases & Caching: *MySQL, MariaDB, MongoDB, Redis*

## Work Experience

### Konrad Group - Senior Software Engineer

July 2021 - Present

#### Bayer (Farmer Experience US Application)

*Led the development of a scalable web ecosystem and backend infrastructure to streamline digital tools for farmers*

- Collaborated with designers and stakeholders to deliver 20+ reusable TypeScript components for new features, focusing on multi app use and scalability within NextJS monorepo
- Led development of the post-auth microservice, containerizing a Node.js backend with Docker and deploying to ECS to ensure high availability, leveraging CloudWatch for observability, and MongoDB for flexible data storage
- Engineered optimized MongoDB schemas and CRUD operations, focusing on data integrity and high-speed retrieval for authenticated user sessions
- Enhanced a serverless GraphQL Backend-For-Frontend service on AppSync by building and maintaining resolvers/ Lambda functions, and streamlining data aggregation from multiple backend services
- Designed and integrated Redis cache layer which reduced database load by 50%, quickened query response times, and improved user experience
- Developed AI chatbot front-end by building reusable React components and integrating server-side REST endpoints to query the client's model, improving initial render performance by 25%
- Helped interview candidates and mentored junior developers to ensure smooth onboarding process

#### Konrad Group (Internal Employee Portal)

*Modernized internal tooling by optimizing legacy services, implementing new features, and improving user experience*

- Refactored legacy data fetching into new GraphQL service, organizing backend querying and improving key query performance by 30%
- Built an end-to-end events management platform by designing MariaDB data models, extending the Apollo GraphQL APIs on EC2, and developing the React UI front-end
- Improved employee onboarding experience by integrating AWS S3 for scaleable photo storage, resolving long standing bugs and delivering a more reliable application

#### Deloitte (Internal Auditing Application)

*Developed high-performance frontend architecture and reusable components to streamline the client auditing process*

- Leveraged React Context and Redux for scalable state-management system, reducing extra network calls by 80% and improving user experience
- Developed real time notification system using Socket.IO, providing instant updates of document changes to users and improving efficiency of auditing process

## Projects

 [Link to Game](#)

### Online Multiplayer Card Game (Web Based Version of Card Game 'Coup')

- 60+ active users at its peak, spanning 5 countries, with over 100 games
- Automated scalability of platform by distributing load to four Firebase instances while maintaining performance
- Developed multithreaded algorithm for state changes, focusing on reliability, speed, and user experience

## Education

Bachelor of Applied Science in Mechanical Engineering, University of Waterloo (2021)

Relevant Courses: ECE 406 - Algorithm Design and Analysis