ARAD PARSHAD

(514) 991-8839 | Mail | GitHub | LinkedIn | Portfolio

EDUCATION

University of British Columbia | Bachelor of Computer Science and Data Science Relevant Coursework: Algorithms & Data Structures, Software Design Principles & Patterns Cloud Computing, Big Data Processing

Sep 2021 - Present

Key Topics: Scalable system design, functional programming, distributed computing

EXPERIENCE -

Associated Engineering | Freelance Project | Digital Asset Management Vancouver, BC | January 2025 - Present React, .NET, SQL, Azure

- Led a team of 8 in developing a React + .Net application, ensuring clear communication and collaboration.
- Designed a robust SQL-based data model, enabling fast metadata retrieval and scalable asset organization.
- Designed and implemented a scalable backend API using Object-Oriented Programming (OOP) principles, improving system response time by 2 seconds and significantly enhancing code maintainability and extensibility.
- Led the integration of Azure resources—including Microsoft SQL Database, Azure Blob Storage, and dual Web App services—streamlining asset management and accelerating data retrieval to near-instant levels.
- Built CI/CD pipelines for both frontend and backend using GitHub Actions, with each pipeline completing in under one minute for rapid testing and deployment feedback.

Kidoz | Software Engineering Intern

Vancouver, BC | May 2024 - August 2024

Go, AWS, Redis, DynamoDB, Bash

- Go-based Ad-serving System: Developed production-ready features impacting millions of ad impressions daily.
- Extended real-time ad tracking and enforcement using Go, automating ad prevention once spend exceeded 125% of target budgets.
- Integrated AWS Lambda and CloudWatch for automated log processing and system-wide alerting.
- Refactored inefficient Go-based API calls and data pipelines involving Redis and DynamoDB, reducing latency from 500ms to 300ms.
- Collaborated with the team to design and implement a Bash-based unit testing framework integrated into the CI/CD pipeline, boosting test reliability and deployment safety.

Kidoz | Full Stack Developer Intern

Vancouver, BC | May 2023 - August 2023

Laravel, Golang, MongoDB, PHP

- Built scalable backend APIs in Laravel and integrated with a Golang microservice for high-volume data processing.
- Optimized MongoDB and SQL query performance, cutting data retrieval times by 50% on high-traffic endpoints.
- Implemented automated testing using PHPUnit and Jest, significantly improving test coverage and reducing production bugs.
- Developed a cross-platform configuration management tool in Bash, allowing for seamless PHP.INI modifications across environments.
- Refactored legacy monolithic Laravel code into modular services, improving maintainability and boosting API response time by 30%.

PROJECTS -

NoSQL Query Engine | Jan 2024 - Mar 2024

Repository

TypeScript | React | Express | MongoDB

- Processes complex queries on unstructured data while ensuring compatibility across multiple data formats.
- Implements an EBNF-based parser and Abstract Syntax Trees (AST) for accurate query validation and execution.
- Optimized AST-driven filtering, increasing performance by 40% on large datasets.

Distributed Image Recognition | Sep 2023 - Dec 2023

Python | TensorFlow | AWS SageMaker | Docker

- Developed and deployed a distributed CNN model on CIFAR-10, leveraging SageMaker's scalability.
- Utilized Amazon S3 for efficient data storage, with SageMaker's real-time monitoring and inference pipeline.
- Implemented hyperparameter tuning, improving classification accuracy by 15%.

Health Tracker | May 2023 - Aug 2023

Repository

Java | Spring Boot | PostgreSQL | React

- Developed a wellness-tracking app integrating mental and physical health data for personalized recommendations.
- Designed goal-setting and analytics dashboards, providing customized alerts based on user trends.
- Implemented JWT-based authentication and a robust backend API for secure data handling.

TECHNICAL SKILLS -

Languages: JavaScript (TypeScript) • Java • Python • Scala • C • SQL • C# • Go • PHP • Bash

Frontend: React.js • Next.js • NgRx • Tailwind CSS • Less

Backend: Go • Node.js • Express.js • Laravel • Spring Boot • .NET

Databases: MongoDB • PostgreSQL • MySQL • Cassandra • Redis • DynamoDB

Cloud & DevOps: AWS (Lambda, S3, EC2, SageMaker, CloudWatch) • Azure (Blob Storage) • Docker • Kafka •

CI/CD • Bash (Testing + Scripting)

ADDITIONAL QUALIFICATIONS —

Algorithm Expertise: Strong problem-solving skills with advanced knowledge of data structures and functional programming paradigms.

Web Architecture: Deep understanding of modern web technologies including REST APIs, Angular, TypeScript, and responsive design.

Distributed Systems: Practical experience with large-scale data processing and designing resilient distributed architectures.

Continuous Learning: Actively pursuing advanced topics in software engineering through online courses and personal projects.

Repository