Kowshik Islam

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TECHNICAL SKILLS

Front-End: JavaScript, TypeScript, React, Redux, HTML, CSS, Storybook, Jest, React Testing Library, Tailwind
Back-End: Node.js, C#, Express.js, Python, NUnit, Supertest, PostgreSQL, MongoDB, SQLite, Redis, RabbitMQ, Elasticsearch, Logstash, Nginx, RESTful APIs, Swagger/OpenAPI
Cloud: AWS (CDK, ECS, EC2, Lambda, RDS, DynamoDB, SQS, S3, CloudWatch, CloudFront, VPC, IAM)
Others: Git, Docker, Jenkins, Kibana

EXPERIENCE

Software Integration Engineer   02/2019 – Present
OFGO Studio, Vaughn, Canada
- Designed and deployed a distributed architecture featuring task scheduler, creator, and worker nodes, scaling daily task processing from 400 to 8,000+ tasks via concurrent execution and asynchronous communication.
- Slashed worker node downtime by 50% by implementing a robust heartbeat protocol for real-time status checks and automated recovery while enhancing logging for swift error resolution and debugging.
- Architected and fine-tuned RESTful APIs, boosting system performance by 30% and ensuring seamless handling capacity for over 100,000 API calls daily, enabling scalable growth and enhanced user experience.
- Crafted front-end components with lazy loading, pagination, and centralized state management using Redux, enhancing user experience, scalability, and backend integration.
- Created and implemented a Python application using NumPy and Pandas to automate data transformation for an ERP system, reducing manual data entry by 70% and saving hundreds of hours monthly.
- **Tech Stack**: JavaScript, TypeScript, React, C#, Python, VB.NET, RabbitMQ, AWS

Software Engineer, Co-Creator   01/2023 – 10/2023
Herald, Remote ↗
- Pioneered the development of Herald, an open-source observability platform leveraging Elasticsearch, Logstash, Kibana, and AWS to provide real-time monitoring for distributed applications, with a capacity to process 3 million log lines within 5 minutes.
- Transformed Herald's deployment process with AWS CDK and CLI, minimizing manual setup efforts from hours to fewer than 20 clicks, enhancing productivity, and streamlining production operations.
- Orchestrated a scalable microservice architecture for Herald using AWS CDK, establishing resilient infrastructure that supports dynamic system scalability and integrates auto-scaling for operational flexibility.
- Executed a robust security strategy encompassing multi-layer authentication, TLS encryption, IAM security measures, and secret management, strengthening Herald's defense mechanisms and securing sensitive data.
- **Tech Stack:** JavaScript, ELK Stack (Elasticsearch, Logstash, Kibana), AWS

PROJECTS

- **Trading Robot:** ↗ Built a Python-driven algorithmic trading system to analyze trends and test strategies, gaining insights into the nuances of trading and assessing potential success.
- **Redis-Lite:** ↗ Created a Python-based Redis server variant with multi-threading, replication protocols, and stream handling functionalities to ensure efficient management of high concurrency and scaling across networked applications.

EDUCATION

Software Engineering   01/2021 – 12/2022
Launch School, Remote ↗

BEng Mechanical Engineering   09/2011 – 07/2016
Ryerson University (Toronto Metropolitan University), Canada ↗