

Ahsanul Kabir

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Education

Grand Valley State University, Grand Rapids, MI May 2027
MS in Applied Computer Science

- Relevant Coursework: Distributed Systems, Machine Learning, Secure Software Engineering

Bangladesh University of Engineering and Technology, Dhaka, Bangladesh Feb 2021
BS in Computer Science and Engineering

- Relevant Coursework: Computer Security, Fault-Tolerant Systems, Pattern Recognition, Artificial Intelligence
- Class Representative - Class of 2021

Professional Experience

Graduate Research Assistant, *GVSU College of Computing*, Grand Rapids, MI Aug 2025 – Present

- Deploy a machine learning based plant disease detection platform using AWS EC2, Nginx, and Cloudflare.
- Implement new features in Flask and Nuxt to expand platform functionality.

Senior Engineer, *bKash Limited*, Dhaka, Bangladesh Feb 2023 – Aug 2025

- Contributed to and maintained bKash's Payment Gateway, processing over 410k daily transactions. Used Java, Python, AWS Cognito, AWS Lambda, DynamoDB, and CloudWatch.
- Redesigned the payment modules of the gateway to an object-oriented microservice architecture from serverless Lambda functions, reducing response time by 50%. Used Spring WebFlux, Redis, API Gateway, and Locust.
- Migrated the Merchant Notification system to a reactive module, enabling it to handle 7,000 requests per minute while reducing EC2, DynamoDB, and S3 costs.
- Enhanced system security by implementing a REST API request-response cipher mechanism.
- Collaborated with cross-functional teams and stakeholders to deliver high-quality products, actively participating in Agile ceremonies including stand-ups, refinements, and retrospectives.
- Built CI/CD pipelines with GitHub Actions to run tests on pull requests and deploy changes to a test server.
- Automated local development environment setup using Terraform and AWS CLI, eliminating manual setup errors.

Software Engineer, *Reve Systems*, Dhaka, Bangladesh Jan 2022 – Feb 2023

Junior Software Engineer Jul 2021 – Dec 2021

- Developed admin and customer portals for the VoIP enterprise platform. Used Spring Boot, Struts, and MySQL.
- Implemented BalanceManager using Redis Pub/Sub for call and SMS authorization, enabling a transition from a postpaid to a more cost-effective prepaid business model.
- Automated the call rate entry process by developing an email-driven solution, eliminating manual data entry errors, reducing associated operational costs.
- Maintained and updated documentation for clients, testers, and the product team.

Engineering Trainee, *Chaldal Limited* Mar 2021 – Jun 2021

- Gained hands-on experience with Microsoft Azure, the .NET framework, and Agile methodology.
- Learned C# and F# for functional programming solutions.

Technical Skills

Languages	Java, Python, C#, SQL, C, Bash, JavaScript
Frameworks & Libraries	Spring Boot, Flask, .NET, Struts, Node.js, Nuxt.js
Databases	DynamoDB, Redis, MySQL
Cloud (AWS)	Lambda, EC2, EKS, SNS, S3, API Gateway, Cognito, WAF, CloudWatch
DevOps	Docker, Kubernetes, Jenkins, Terraform, Nginx
Tools	Git, MATLAB, Postman, JIRA, Locust, Maven, JFrog
Monitoring	New Relic, ELK Stack, JDK Mission Control

Projects

Tokenized Checkout Payment, bKash Limited

A fintech solution that helps merchants accept payments easily while giving bKash users a simple, convenient way to pay online through websites or mobile apps. Implemented merchant-facing transactional APIs and customer-facing payment validation APIs.

Edge Forestry, GVSU College of Computing

An AI-powered system that analyzes imagery to detect early signs of plant infections by identifying subtle variations in foliage color, and canopy texture, enabling faster and more accurate treatment decisions. Deployed the platform on AWS, and currently working to incorporate satellite imagery analysis for broader forest health monitoring.

Instant Payment Notification, bKash Limited

A real-time notification system that keeps bKash merchants instantly updated on transactions. Designed and implemented the complete module in AWS SNS and reactive Spring WebFlux.

Airtel Advantage, Reve Systems

A platform that makes it easy for global telecom carriers to partner with Airtel, offering services like international voice, SMS, and DID, with reporting and call-rate APIs to streamline operations. Implemented call-rate and reporting related APIs.

Accolades

First Place: SentinelOne Purple AI ThreatOps Challenge GrrCON Cyber Security Summit 2025, Grand Rapids, MI	Oct 2025
Third Place: SentinelOne AI SIEM ThreatOps Challenge GrrCON Cyber Security Summit 2025, Grand Rapids, MI	Oct 2025
Star Award, H2 - 2023 Product & Technology Division, bKash Limited, Dhaka, Bangladesh	May 2024