# Rushabh K Gandhi

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# Summary

Results-driven Full-Stack Developer & IoT Engineer with 6+ years of experience in designing and developing scalable web applications, cloud-based solutions, and IoT-integrated systems. Strong expertise in .NET Core, Angular, React, Azure, and DevOps for building high-performance, secure applications.

Skilled in architecting microservices, optimizing cloud infrastructures, and implementing CI/CD pipelines to enhance system reliability and efficiency. Additionally, experienced in IoT and Industry 4.0 solutions, integrating RFID, sensors, SCADA, PLCs, and Edge computing for real-time data processing and automation. Passionate about leveraging cloud, AI, and IoT to drive innovation in industries like Capital Markets, Social Media Apps, Agriculture, Manufacturing, and Healthcare.

# Skills

- Languages: C#| SQL| JavaScript| TypeScript| Python| Java
- Technologies : .NET 6/8 |.NET Core | Web APIs | Angular | React | Node.js | Entity Framework | Signal R
- Databases: SQL Server | NoSQL (MongoDB | CosmosDB) | Azure Synapse | SSIS
- Cloud & DevOps: Azure (Azure Functions | API Gateway | Key Vault | Blob Storage) | AWS (Lambda | S3)
- Security & Infrastructure: Security | Firewalls | Network Segmentation | Terraform | Docker | Kubernetes
- Certifications : Python or Everybody (Coursera) | AZ-900 | AZ-204 | and AI-900 |
  Professional Industrial Automation Training (N.C.V.T) | PG in Advance IoT (Cranes Varsity Bangalore)
- English, Gujarati, and Hindi : All professional proficiency or above

# Experience

**Programmer Analyst** 

# SunsetGrown - Mastronardi

Kingsville, Canada Nov, 2023 – Present

- User Management: Implemented Azure Active Directory and ADB2C for better user management and access control.
- Code Management: Enhanced code sharing and internal access using NuGet and Azure Artifacts.
- Architecture Design: Designed low-level architecture for APIs and backend using Clean Architecture.
- DevOps: Created .yaml scripts for building pipelines and deployment in Azure DevOps.
- Infrastructure: Implemented Azure based architecture which includes: Azure Gateway with WAF, API Management, VNet, Subnets, NSG, DNS rules, Function Apps, Web Apps, WebAPIs, Database and DevBox with Terraform scripts.
- Code Review: Conducted code reviews and implemented SonarQube for code quality.
- Performance Improvement: Developed a high-performance cloud solution with Azure App Services, Functions, and Logic Apps, increasing performance by 25% and reducing costs by 20%.
- Database Management: Managed Azure SQL Database, optimizing performance and maintaining backups.
- Frontend Development: Developed frontend with Bootstrap, Angular 16, and PrimeNG, incorporating eslint, Angular CLI, reactive forms, lazy loading, ES6, and preventing memory leaks. Almost developed 20+ complex pages independently with minute details.
- Integrated Services: Integrated weather services, PostMark email services, language translation, and AI cognitive services.
- Technologies: Utilized C#, .NET 9, Angular 16, Azure Functions, SQL, Azure DevOps, TypeScript, HTML, CSS, Bootstrap, and Azure to develop robust, scalable, and efficient cloud solutions

# **Software Engineer**

<u>SPARKT</u>

*Remote* May, 2022 – Nov, 2023

Phillips Corporation : Developed the microservices-based ecosystem, serving various business needs including machinery monitoring, skill development, social media, ed-Tech, and e-commerce. It empowers Phillips to efficiently manage operations, offering a versatile solution for customers and stakeholders. Phillips X Platform - Business Technology and Software, Phillips Education – Ed-Tech, Phillips Machinist – Machining, Manufacturing. Overall, it has 30K+ active Users which uses these services.

- Led the design and development of multiple enterprise-level microservice applications and actively involved in building the most **complex** part of the system with **Agile** Methodology.
- Built the IdentityServer4 for Authentication, Authorization and Single Sign On for the Web-Application, Microservices, and Mobile Application.
- Built Azure Services -> (CI/CD pipelines with Azure Repo, Service Bus, Event Bus, Database, Application Insights, Functions, Blob and CDN, Key Vault, and App Service), and write test cases with xUnit, which reduced manual effort by ≈80%.
- Implemented the gRPC, and HTTP abstraction which increased the API response between two microservices by ≈50%.
- Optimized C# code by LINQ, ADO .NET, MS-SQL queries, boosted queries up to ≈45%.
- Managed Pull requests, code reviews, load/stress testing, unit/integration/e2e testing, fixed memory leakage issues
- Integrate 3rd party APIs like Iron Suite for .NET, Learning Locker LRS, Ziptastic, PIFY, Twilio, Sendgrid, Zero Bounce, Calendarific, Google Firebase, Google Analytics, Google Big Query, Get Stream, Azure Content Moderator.
- Technologies: C#, .NET 6, Angular 14, SQL, Azure DevOps, TypeScript, PrimeNg, HTML, CSS, Bootstrap, Social logins (Facebook, Google, Twitter, LinkedIn), Payment gateway, IoT.

#### **Software Engineer**

### **Accenture**

<u>Capital Group</u>: - Developed TOPS, it is a back-office system for retail accounts (mutual funds) to validate, process, execute and acknowledge trades created by account managers with their corresponding confirmations from brokers.

- Microservices Architecture setup and migration to .NET Core 3.1 APIs, Spring Boot and Angular 12 from ASP .NET (legacy system).
- Worked in an Agile environment, leveraging JIRA for project management and Confluence for technical documentation. Additionally, utilized Visio to create UML and other essential diagrams.
- Implemented Entity Framework 5.0's with Code-First approach within the Onion Architecture Pattern.
- Developed the angular components and Web-APIs and improving the performance by using **multi-threading**, various **algorithms**, **OOPS**, and **async/await** concepts.
- Designed and developed the Okta OAuth 2.0 (POC) and Jenkins Pipeline for the Web-Application, and Microservices.
- Built an Event Bus abstraction to handle Asynchronous message-based communications, based on RabbitMQ.
- Created **SSIS** packages to transfer the data from the legacy TPS (trade processing system) application SAP ASE(Sybase) database to the new TOPS application **SQL Server** database. Implemented **AWS S3** file retrieval, processing, uploading, and configured set of rules.
- Created Autosys jobs to execute endpoints and wrote Python automation scripts to reduce developer time ≈90%.
- Recognized by the team and the client for quality work and **quick delivery** with **minimal defects** during development and maintenance.
- Technologies: C#, .NET Core 3, Angular 12, SQL, AWS, Autosys, Entity Framework, Jenkins, TypeScript, HTML, CSS, Bootstrap, SWIFT, RabbitMQ, SSIS, SSRS.

#### More projects

- Smart Medicine Vending Machine (Startup)
  - Built a smart medicine dispenser using Raspberry Pi, Arduino, IR Sensors, QR Scanner, and Azure IoT Hub.
  - Developed a cloud-based dashboard for real-time inventory monitoring.
  - Integrated payment gateways & RFID authentication.
- Industrial IoT Monitoring System (Industry 4.0)
  - Led the architecture for Edge computing, integrating PLC (Siemens, Allen Bradley), DCS, and cloud-based analytics.
  - Designed SCADA-integrated industrial automation system for machine status tracking & predictive maintenance.
  - Implemented LoRaWAN-based wireless sensor network for remote data logging.
- Smart Greenhouse Automation
  - Developed AI-driven temperature & humidity control using ESP32, DHT11 sensors, and MQTT protocol.
  - Integrated Azure Cognitive Services for anomaly detection in crop growth.

# Responsibilities

 Software Development Cycle: Agile Methodologies | Requirement gathering & analysis | Database design | Coding | Data Processing | UI designing | Unit testing | Code review | Deployment | Technical documentation | IoT (Internet Of Things)

• **Mentoring:** Helping teammates technically | KT Sessions | Discipline | Passion.

### Education \_\_\_\_\_

Master of Engineering	University of Windsor	Windsor, ON, CA Sept, 2022 – Dec, 2023
Major in Computer Engineering - 84%		
Bachelors of Engineering	<b>Gujarat Technical University</b>	Ahmedabad, Gujarat, IN Aug, 2015 – Jun, 2019
Instrumentation and Control - 87%		

#### Publications

- <u>"Multifunctional HUD with Drowsy Detection and Fog Elimination Mechanism", Published in Elsevier-SSRN Digital Library, Featured in Google Scholar</u>)
- "<u>Multifunctional Load Cell and RFID with Stock Management</u>" Springer- Advances in Automation, Signal Processing, Instrumentation, and Control
- <u>"E-Verification of Driver for Road & Automobile Safety", Published in Journal of Emerging Technologies and Innovative Research</u>