

Rokesh Prakash

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EDUCATION

Stony Brook University <i>Master of Science in Computer Engineering [GPA: 3.88/4.00]</i>	Aug 2023 – May 2025 New York, USA
Indian Institute of Information Technology <i>Dual Degree - B.Tech (Mechanical Engineering) & M.Tech (Advanced Manufacturing) [GPA: 8.59/10.00]</i>	Jul 2015 – May 2020 Chennai, India

EXPERIENCE

Graduate Teaching Assistant <i>Stony Brook University, Department of Electrical & Computer Engineering</i> <ul style="list-style-type: none">Elevated C and Git proficiency for 100+ students through structured tutorials in Programming Fundamentals under Prof. Doboli.Designed modules and led hands-on C++ lab sessions in Advanced Programming & Data Structures under Prof. Xin Wang.	Aug 2024 – May 2025 New York, USA
Software Engineer <i>Congruent Solutions</i> <ul style="list-style-type: none">Contributed to a U.S. retirement product, serving over 5M users on Azure by using C#, Entity Framework, REST API, RabbitMQ, and SQL for backend and JavaScript, React.js, and ELK for frontend integration and logging.Boosted page response time by up to 300% by optimizing database queries with Dapper ORM, Redis, indexing strategies, and stored procedures. Conducted performance testing and ANTS profiling to identify and resolve bottlenecks.Reduced manual data mapping effort by 60% by streamlining Excel column mapping to system objects through a React-integrated Web API in ASP.NET Core and leveraging Azure Functions.Accelerated debugging by 40% by integrating Serilog with ELK stack (Elasticsearch, Logstash, Kibana) for real-time log monitoring and enhanced system observability.Automated 50% of customer emails by integrating SendGrid API, dynamic templates, and event-driven triggers with RabbitMQ.	Jun 2021 – Dec 2022 Chennai, India
Software Engineer <i>SVP Laser Technologies</i> <ul style="list-style-type: none">Developed a Windows-based CNC control application for 4-axis and 5-axis machines using C#, .NET Framework, WPF, Azure Cloud Services, and Entity Framework, enhancing automation, and precision in advanced manufacturing.Refined deployment speed by 60% by automating CI/CD pipelines in Azure DevOps, leveraging Docker for containerization, Azure Kubernetes Service (AKS) for orchestration, and Azure Container Registry (ACR) for image storage and management.Improved data accessibility and enabled predictive maintenance by integrating Azure SQL Database and Azure Blob Storage for scalable cloud-based storage and real-time analytics on historical performance metrics.Engineered a closed-loop feedback system with EmguCV (OpenCV), improving performance by 2x and reducing runtime by 70%.	Jun 2020 – Jun 2021 Chennai, India
Software Engineer Intern <i>Titan Company Limited</i> <ul style="list-style-type: none">Achieved 96% accuracy in identifying textile fiber and silk purity by implementing a CNN model in Python with TensorFlow/Keras.Simplified fabrication for prosthetic leg by developing a C++ OpenCV-based measurement system, with 0.05 precision.	May 2019 – May 2020 Chennai, India

TECHNICAL SKILLS

Programming & Development: C#, Python, Java, JavaScript, TypeScript, C++, C, VB.NET, SQL, LINQ, RESTful APIs
Frameworks & Libraries: ASP.NET Core (MVC, WebForms, WPF, Web API), Entity Framework, ADO.NET, Dapper ORM, React.js, Node.js
Cloud & DevOps: Azure (Web App, Functions, SQL Database, ACR, Blob Storage), AWS (EC2, EKS, Lambda, S3, DynamoDB), GCP (BigQuery)
CI/CD & Infrastructure: Git, GitHub Actions, AWS CodePipeline, Azure DevOps Pipelines, Docker, Kubernetes (EKS, AKS), Terraform
Software Engineering: Agile Methodology (Scrum), Data Structure and Algorithm, Microservices, Object Oriented Programming, Design Patterns
Skills: Full Stack, Distributed Systems, Bootstrap, Tailwind CSS, MySQL, MS SQL Server, RabbitMQ

PROJECTS

Multi-Cloud Migration & CI/CD <i>EC2, EKS, Google Cloud, AWS Lambda, Docker, Kubernetes, Terraform</i>	Feb 2025 – Mar 2025
<ul style="list-style-type: none">Migrated the on-premises CloudMart eCommerce app to AWS, Google Cloud, and Azure, enhancing scalability and reliability.Accelerated deployments by 60% using Infrastructure as Code (IaC) with Terraform and AWS CodePipeline & CodeBuild to automate CI/CD for Dockerized workloads on EKS & ECR.Orchestrated microservices on Kubernetes (EKS) & EC2, integrating DynamoDB, AWS Lambda, and Google BigQuery for real-time multi-cloud data synchronization.	
AI-Powered Cloud Automation <i>Amazon Bedrock, OpenAI GPT-4o, Azure AI, Generative AI, Linux</i>	Jan 2025 – Mar 2025
<ul style="list-style-type: none">Boosted product recommendations by 40% using Claude 3 Sonnet (Amazon Bedrock) and Generative AI.Streamlined 80% of customer interactions (order cancellations, inquiries) with OpenAI GPT-4o.Optimized decision-making by analyzing 10K+ reviews using Azure AI Text Analytics for sentiment insights.	
Multilingual Medical Chatbot <i>Python, LLaMA 7B, LoRA, CUDA, Argos</i>	Aug 2024 – Dec 2024
<ul style="list-style-type: none">Fine-tuned LLaMA 7B with LoRA, improving medical query accuracy by 63% and terminology comprehension by 58% with multilingual support and optimized training efficiency on Google Colab using NVIDIA CUDA on an A100 GPU.	
PageTurners E-Commerce <i>C#, Azure, Identity Framework, Stripe, SendGrid, SQL, Git</i>	Jun 2024 – Jul 2024
<ul style="list-style-type: none">Developed and scaled PageTurners on ASP.NET Core MVC (.NET 8) with Azure Web App, leveraging GitHub Actions for CI/CD, Stripe for payments, SendGrid for email automation, and Entity Framework for CRUD operations.	

CERTIFICATIONS

Microsoft Certified: Azure Developer Associate - View Certificate	Sep 2022 – Sep 2023
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