Aiswarya Pai

Akron, OH | +1 234 327 2664 | E-Mail | LinkedIn | GitHub | Portfolio

CLOUD ARCHITECT | BUSINESS ANALYST

AWS Certified Solutions Architect with 6 years of experience designing scalable, high-performing cloud architectures and reducing infrastructure costs by up to 30%. Skilled in automating deployments with CloudFormation and Terraform and applying the AWS Well-Architected Framework for reliable and resilient solutions. Collaborated cross-functionally to implement data-driven solutions that improved customer retention by 25%. Advancing expertise in **Business Analytics, Artificial Intelligence, and Machine Learning** through a master's program, focusing on solving real-world business challenges using data and cloud technologies.

EDUCATION

Master of Science in Management - Business Analytics & Information Systems 08/2024 - Present
The University of Akron, Ohio, USA GPA: 3.96

Coursework: *R Programming for Analytics, Data & IS Governance, Business Intelligence and Data Visualization, Analysis & Design of Business Systems, Project Management, Python for Machine Learning, Database Management*

Bachelor of Technology in Civil Engineering 06/2013 - 05/2017
Mahatma Gandhi University, Kerala, India GPA: 3.9

SKILLS

Cloud Infrastructure: AWS and Azure Infrastructure Design, Infrastructure as Code Automation, Azure DevOps, Identity & Access Management, Network Security, Platform Optimization, Serverless Architecture, Disaster Recovery, CI/CD pipelines, Computer System Validation.

Programming: Python, R, SQL, C#, Terraform, PowerShell, YAML

Analytics & Management: Business Analysis, Data Visualization, Machine Learning, Neural Networks, Data Storytelling, Business Intelligence, Data-Driven Decision Making, Requirements Gathering, Agile/Scrum, Use Case Development, KPI Reporting, Process Improvement, Risk Assessment, Project Management.

Tools & Platforms: Tableau, Microsoft Excel, Power BI, Confluence, JIRA, GitHub, IBM Rhapsody, Visual Studio.

PROFESSIONAL EXPERIENCE

Tata Consultancy Services

Cloud Architect, Morristown, NJ **05/2023 - 02/2024**
- Steered the end-to-end migration of 3 COTS applications to AWS by conducting cloud readiness assessments and designing resilient, scalable architectures to cut down on-premises infrastructure costs by 30%.
- Built strong partnerships with product owners, client architects, and business users to gather technical, functional, and business requirements, translating them into infrastructure solutions.
- Spearheaded the design, implementation, monitoring, and documentation of infrastructure for 5 applications, following AWS Well-Architected Framework, **to achieve 99% customer satisfaction**.
- Served as a key liaison between business stakeholders, IT technical teams, and vendors, and facilitated Agile ceremonies to ensure seamless delivery of MVPs and new features aligned with KPIs and business value.

Cloud Administrator, Leverkusen, NRW, Germany **01/2021 - 04/2023**
- Designed and implemented Infrastructure as Code (IaC) solutions using Terraform, CloudFormation, and GitHub, provisioning scalable environments and improving deployment efficiency by 40%.
- Implemented centralized logging and monitoring via CloudWatch, Elasticsearch, and Lambda, and created BI dashboards to monitor KPIs, which improved system visibility and reduced troubleshooting time by 35%.
- Conducted security and compliance reviews across cloud environments, achieving **98.5% adherence** to organizational security standards.
- Mentored 5 engineers through regular knowledge-sharing and grooming sessions, resulting in measurable skill progression and 2 internal promotions within 12 months.

Junior Cloud Engineer, Kochi, KL, India **12/2017 - 12/2020**
- Provisioned tech stacks on Azure using ARM templates and PowerShell scripts and maintained CI/CD pipelines via Azure DevOps and GitLab, enabling seamless deployments to production.
- Led the post-go-live customer support and cloud platform operations, conducted cost-performance analysis, and executed platform optimization that generated **$50K+ annual savings**.
- Initiated operational reviews, risk tracking, disaster recovery drills, and enabled proactive alerts to prevent critical outages, reducing production escalations by 30%.
- Troubleshot and resolved deployment, performance, and scalability issues across AWS and Azure environments, contributing to improved uptime and better user experience.

PROJECTS

Driver Distraction Detection using Convolutional Neural Networks (CNN) | Python, Machine Learning   **07/2025**
- Identified activities that distract drivers from the images of drivers using CNN models.
- Evaluated the model performance against a pretrained ResNet50 model after transfer learning and finetuning.
- Built a simple UI for the user to upload an image and see the prediction on screen using the tkinter module.

Predicting Medical Expenses | R Programming, Regression Analysis   **03/2025**
- Applied regression techniques on insurance data to predict patient medical expenses based on age, BMI, and lifestyle habits. Compared the accuracy using multiple methods, like gamma regression and Box-Cox transformation.

Crime Data Analysis & Dashboard | Tableau, Microsoft Excel   **11/2024**
- Developed an interactive BI dashboard in Tableau analyzing Chicago crime patterns. Created 5 visualizations to identify high-risk zones and provide actionable recommendations.
- Demonstrated ability to present insights effectively to a non-technical audience.

Student Enrolment System – UI Prototyping & Analysis | C#, IBM Rhapsody, Visual Studio   **02/2025**
- Designed an interactive student enrolment interface with features for login, course search, prerequisite checks, and time conflict detection using Windows Forms and C#.
- Modelled system behaviour through use cases and sequence diagrams in IBM Rhapsody, reflecting Human-Computer Interaction, user behavior analysis, and process improvement capabilities.

OTHER EXPERIENCE

Teaching Assistant, Department of Management, The University of Akron, OH, USA   **08/2024 - Present**
- Collaborated with 2 Professors to organize and maintain the virtual teaching content on Brightspace, facilitating an efficient teaching experience.
- Evaluated assignments and maintained attendance records for two classes of 30 students, ensuring accurate performance tracking.
- Executed clerical duties like filing, photocopying, and inventory management for a smooth classroom operation.

Co-Ops Volunteer, M.A. College of Engineering, Kerala, India   **01/2014 – 03/2017**
- Co-ordinated career guidance sessions and placement training and served as the emcee/host for annual ceremonies.
- Worked closely with recruitment teams from various companies and as a registration desk assistant for career fairs and events.

CERTIFICATIONS

- AWS Educate – Introduction to **Generative AI**   **06/2025**
- Microsoft Certified **Azure Cloud Administrator**   **06/2020**
- **AWS Certified Solutions Architect** Associate   **07/2018**
- ****Azure AI Fundamentals and AWS ML Engineer Associate (**In Progress – planned for 10/2025)**

CONFERENCES ATTENDED

AWS Summit New York City   **07/2025**
- Attended chalk talks and builder sessions on GenAI at scale, cloud observability, and scalable data infrastructure, gaining exposure to the latest advancements and real-world applications.
- Engaged with AWS experts and industry case studies on data governance, BI-driven decision-making, and building secure, cost-optimized, production-ready AI/ML solutions.

Business Analytics & Innovation Summit, University of Akron, OH   **09/2024**
- Interacted with industry leaders from NE Ohio on AI literacy, data governance, and digital transformation.
- Explored real-world case studies and networking opportunities with professionals and faculty, strengthening applied knowledge in business analytics and enterprise innovation.

AWARDS & RECOGNITION

- TCS - Star of the Month Award (2023), Contextual Master Award (2021), ILP Kudos Award (2018)
- Pradeep G Pai Outstanding Scholar Award - World Konkani Centre (2018)
- Best Outgoing Student – Civil Engineering Department, M.A. College of Engineering (2017)