Anmol Manchanda

Technical Solutions Architect | AI-Assisted Development Specialist

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PROFESSIONAL SUMMARY

Technical Solutions Architect with expertise in AI-assisted development, data engineering, and rapid prototyping. Proven ability to solve complex technical challenges across multiple domains using modern AI tools and cloud infrastructure. Experience managing TB-scale data pipelines, leading cross-functional teams, and delivering end-to-end technical solutions for global initiatives.

Core Competencies:

- **AI-Assisted Development:** Expert in Claude, ChatGPT, Cursor AI for rapid prototyping and problem-solving
- **Data Engineering:** AWS Glue, PySpark, large-scale ETL pipelines, real-time data processing
- **Cloud Architecture:** AWS (Lambda, EventBridge, Step Functions, Glue), infrastructure automation
- **Full-Stack Development:** Python, JavaScript, React, API development, database design
- **Technical Leadership:** Project management, technical documentation, stakeholder communication
- **Automation:** Process optimization, workflow automation, system integration

TECHNICAL SKILLS

Programming Languages: Python, JavaScript, Java, HTML/CSS, Swift, Kotlin, Go, Node.js
Cloud & Data: AWS (Glue, Lambda, EventBridge, Step Functions), PySpark, MySQL, MongoDB, SQLite
AI & Development Tools: Claude (Opus/Sonnet), ChatGPT, Cursor AI, Claude Code CLI, GitHub Actions
Design & Automation: Figma, Apple Shortcuts, N8N.io, Workflow Automation
Project Management: Agile/Scrum, Technical Documentation, Budget Management, Sprint Planning

PROFESSIONAL EXPERIENCE

Senior Technical Solutions Engineer | United Nations (UN-Habitat/UNOPS) | June 2024 - Present

Remote - Quality of Life Initiative (12 cities, TB-scale mobile data)

Data Engineering & Architecture:

- Architected and implemented comprehensive data pipeline processing TB-scale mobile ping data from 12 global cities using AWS Glue, PySpark, and EventBridge
- Designed scalable ETL workflows with automated error handling and real-time monitoring, reducing data processing time by 60%
- Built infrastructure automation using AWS Lambda, Step Functions, and CloudFormation for seamless deployment and scaling

AI-Assisted Development & Innovation:

- Pioneered AI-assisted development approach using Claude, ChatGPT, and Cursor AI, accelerating prototype development from weeks to days
- Developed custom automation solutions and rapid prototypes, including native macOS applications and web platforms
- Implemented advanced prompt engineering strategies for complex technical problem-solving and code generation

Technical Leadership & Project Management:

- Led technical implementation across multiple workstreams: data engineering, web development, testing, and documentation
- Managed project budgets, sprint planning, and deliverable tracking for international stakeholder alignment
- Created comprehensive technical documentation and API specifications for global development teams

Full-Stack Development & Integration:

- Built React web applications with real-time data synchronization and responsive design
- Developed automated testing suites and CI/CD pipelines using GitHub Actions
- Integrated multiple data sources and third-party APIs for seamless user experience

Content Strategy & Communication:

- Generated technical and legal content (Terms & Conditions, Privacy Policies) using AI optimization
- Facilitated daily standups, sprint reviews, and stakeholder presentations
- Collaborated with GIS partners and international teams for smooth project delivery

Blockchain Engineer & Mobile App Developer | Smart Waterloo Region Innovation Lab | Feb 2024 - June 2024

Region of Waterloo, Kitchener, ON

- Architected custom blockchain network using Hyperledger Fabric & Aries for municipal applications
- Developed smart contracts and mobile applications (Android/iOS) using Kotlin and SwiftUI
- Designed user interfaces and prototypes using Figma with focus on accessibility and user experience
- Implemented Agile development practices with sprint-based delivery and stakeholder feedback loops

TECHNICAL PROJECTS & ACHIEVEMENTS

AI-Powered Life Manager (macOS Native App)

- Built comprehensive life management application using AI-assisted development
- Integrated multiple APIs and automation workflows for productivity optimization

Enterprise Data Pipeline Architecture

- Designed and deployed AWS-based data processing infrastructure handling 10+ TB monthly data volume
- Implemented real-time monitoring and automated scaling capabilities

Automation & Integration Solutions

- Created 100+ Apple Shortcuts for workflow optimization
- Developed N8N.io automation workflows for business process improvement

EDUCATION & CERTIFICATIONS

Post Graduate Certificate in Mobile Solutions Development | 2023
Conestoga College (School of Applied Computer Science & IT) | Waterloo, CA

Android Basics Nanodegree by Google | 2017
Udacity | Online

Bachelor of Computer Applications | 2017
Guru Gobind Singh Indraprastha University | Delhi, IN

In Progress: AWS Certified Solutions Architect - Associate

ADDITIONAL EXPERIENCE

Technical Consultant | Various Projects | 2024 - Present

- Pride Month Tech Panel: Featured speaker on diversity in tech (June 2024)
- Technical advisory for local startups and automation projects
- Freelance technical writing and content creation

Team Leader & Project Manager | AIESEC Delhi IIT | 2016 - 2017

- Managed international volunteer program with 50+ participants
- Led recruitment, training, and project coordination for NGO partnerships

KEY ACHIEVEMENTS

- **Process Optimization:** Reduced data processing time by 60% through automation and AI-assisted development
- **Technical Innovation:** First to implement AI-assisted development methodology within UN technical teams
- **Cross-functional Leadership:** Successfully managed technical delivery across 6+ specialized roles simultaneously
- **Global Impact:** Delivered technical solutions supporting Quality of Life initiatives across 12 international cities