

Ambreen Umair

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SUMMARY

I am a seasoned software professional with over 9 years of comprehensive experience in software design, development, and maintenance, specializing in AI solutions and software engineering. My expertise includes designing AI architectures, developing and implementing AI-driven strategies, and technical roadmapping from concept through implementation. My recent roles have focused on architecting and prototyping AI systems to ensure seamless integration with existing infrastructure, and providing strategic AI guidance to enhance business outcomes. I have demonstrated ability to lead complex software projects, enhance product functionalities, and mentor teams in high-tech environments. I am passionate about continuous learning and applying new technologies across diverse domains.

TECHNICAL SKILLS

Languages/Software: Python, C/C++

Special Expertise: Generative AI, Prompt Engineering, Data Science and Machine Learning, AWS, IaC, Working with Unix based OSes

EXPERIENCE

Freelance(Nov 2023-Present)

As AI Solutions Architect and Consultant

1. Designing and architecting AI systems that integrate seamlessly with existing infrastructure.
2. Developing technical roadmaps for AI initiatives, from conception through implementation, including selecting appropriate technologies and frameworks.
3. Prototyping and testing potential solutions to ensure feasibility and performance expectations.
4. Working directly with clients or internal stakeholders to define business needs and translating them into technical specifications.
5. Providing expert guidance and advice on the strategic use of AI to achieve business outcomes.
6. Maintaining ongoing relationships to support system enhancements and future developments.

Crossover/Trilogy (June 2022-August 2023)

As Senior Software Engineer

1. Implementing new features on existing software products by solving complex implementation problems and making the appropriate technical decisions.

2. Fixing bugs to permanently eliminate defects that impair product functionality.
3. Reviewing code from other developers to ensure they meet strict code quality standards and will not cause a regression.
4. Performing root cause analyses that investigate defects based on reported outages, and create product fixes.

The products I have been responsible for maintenance and feature enhancements of include [GFI Suite of products](#) including [Kerio Control](#) Server and Clients, [Exinda Network Orchestrator](#), Gen AI based Education platform/products currently also being used by [Alpha School](#) in the US.

Crossover/Trilogy (4 Months)

As Product Knowledge Curator

1. Developing expert-level knowledge of new SaaS products acquired by the company every 2 to 3 weeks.
2. Creating knowledge base articles for L1 and L2 technical customer support agents.
3. Creating tests and graduation interview packs for support agents to assess their ability to support the company's SaaS products.
4. Conducting graduation interviews for selecting/onboarding L1 and L2 agents to support new SaaS products.

AkuaStar (1.5 Years)

As Project Manager

1. Managing all technical and marketing aspects of the company's e-commerce business.
2. Managing company's Amazon FBA projects in the pipeline, including effort estimation and task allocation of Virtual Assistants for listing optimization, PPC, market analysis, finding, developing and sourcing physical products for the brand.

Ebryx (2.5 Years)

As Telecom/VoIP Expert and C programmer

1. Research, installation, configuration, development and documentation of all the backend telephony of a client project Sales Portal, a platform for selling and buying leads between call centres and **Winner of the DMA 2010 People's Choice Innovation Award**. My contributions to this project are:
 - Installation, code tweaking, configuration and setup of Asterisk PBX based telephony server peered with Vitelity (VoIP service provider) trunks.
 - Amazon EC2 AMIs setup, creation and maintenance of telephony and web servers including many of their services like Elastic Load Balancing, Auto Scaling, Amazon Relational Database Service, CloudWatch and Elastic Block Store.
 - Call routing, CDR(Call Detail Records), programs/scripts (C, Perl, Bash) that interacted both with the telephony and web servers and updated the database respectively.

- Documentation of all of the above tasks.
- 2. Complete CCXML implementation of a motivational weight loss program IVR on the Voxeo IVR platform. The IVR functionality included: both inbound and outbound calls, audio files playback, calling web services to send and receive customer information to the database, AMD (Answering Machine Detection).
- 3. Updated Wireshark, an open source packet analyzer, code to extract and write SIP payload in RTP to create audio files for all SIP calls in the network.

As Team Lead and System Analyst

1. Call center software based on Vicidial, an open source call center suite.
2. Updated Vicidial's Perl and Bash scripts to interact with the latest version of Asterisk PBX and lead the web development team to use the telephony backend with their new GUI.

Palmchip Pakistan (3.5 Years)

As Telecom expert and R&D Engineer

1. Worked directly under the VP Engineering of the company during research and development.
2. Did research on Computer Telephony Integration (CTI) and Computer supported Telephony Applications (CSTA) and related protocols TAPI and CTAPI.
3. Involved in finding Talkflow competitive products in the market and performed features assessment of the product.
4. Developed understanding of mobile location-based services technologies and architectures including LBS (Location Based Services) platforms and GSM network side LBS elements.
5. Symbian application demo preparation for a mobile service provider in Pakistan.

As Embedded Systems Engineer

1. Porting, running and benchmarking of open source Linphone software on Palmchip's System on Chip (SoC) platform called the Diamond board. This was later packaged as a library and marketed as an Embedded IP phone SDK.
2. Ported Asterisk PBX to another SoC board with WIFI which was marketed as the company's WIFI PBX.

As C Programmer

1. Protocol analysis and development of network protocols in C for the [Fireeye](#) project known as PSR (Protocol Sequence Replayer) for malware detection and prevention.

As Software Analyst

1. Analysis of the architectures of various open source systems including Asterisk, Network Management Systems (NMSs) like OpenNMS and softphones like Linphone.

EDUCATION/TRAININGS

- BSc: Electrical Engineering, University of Engineering and Technology Lahore.
Attained 79% with Honors.
- In-house device drivers programming training.
- Coursera Courses:
 - Building Deep Learning Models With TensorFlow
 - Google Cloud Platform Big Data And Machine Learning Fundamentals
 - IBM AI Engineering Specialization
 - Scaling Machine Learning On Big Data Using Apache Spark