

Nagaraju

Architect/Team-lead Software Engineering Lead / Product Development

SUMMARY

- Software professional with 16+ years in Product development and IT services in MNCs - Developing Fintech product for Algo trading and converting it to SAAS offering - Proven track record in analysis, design, development, coding and testing phases primarily using Python, Java, node.js, full-stack, C, C++ and C# development on Windows and UNIX systems - Highly skilled in application & product development lifecycle - Expertise in the areas of data and application security along with design and architecture of cloud services, pipeline using AWS and Azure - Contributed to successful release of various products & services of leading clients such as Progress Software, IBM, Oracle, AT&T, Northgate Public Services, Fidelity Investments and so on - Expertise in Project transitioning to Offshore and execute successfully by managing the distributed teams - Strong understanding of UNIXes/Linux, Windows, Web technologies, Perl, Angular, Spring boot, node.js and Java Script, Oracle, SQL server, Informix and so on - Solid experience in Data Pipelines, Databases, client-server, distributed, networking and system internals. - Expertise in driving solution identification exercise, involving design thinking, requirement analysis, process re-design, preparation of SOW, solution customization, configuration and implementation - Possess clear thinking from technology perspective with strong skills to identify functional needs and transform them into technology terms; acknowledged for leading & mentoring 8-10 team members to achieve resource wise productivity & optimization - Dynamic & self-starter with strong planning, communication, analytical & problem solving skills

TECHNICAL SKILLS

Main Technical Skills	C++, Python, C
Programming Languages	C, C#, C++, Delphi, Java, Python
JavaScript Frameworks	Angular, Node.js
Java Libraries and Tools	Java EE
AI & Machine Learning	Machine Learning
.NET Platform	.NET
Java Frameworks	Spring
Data Analysis and Visualization Technologies	Kibana
Databases & Management Systems / ORM	Microsoft SQL Server, MySQL, Snowflake, SQL

UI Frameworks, Libraries, and Browsers	HTML, XML
Cloud Platforms, Services & Computing	AWS
Amazon Web Services	AWS CloudWatch
Methodologies, Paradigms and Patterns	Agile, MVC, Scrum, SOLID
Deployment, CI/CD & Administration	Ansible, CI-CD Pipeline, DevOps, Jenkins, SonarQube, TeamCity
SDK / API and Integrations	API
Web/App Servers, Middleware	Azure DevOps Server (ex TFS Team Foundation Server)
Version Control	Git
Message/Queue/Task Brokers	Kafka
Operating Systems	Linux, Unix, Windows
Platforms	SAAS
Other Technical Skills	DesignPatterns, ERP (Enterprise Resource Planning)

EXPERIENCE

- **Key Result Areas:**

I'm a software professional who values clean code practices, test-driven development, and simplicity over complexity. With 16+ years of experience with product development, enterprise application integration and web development. Few of my core areas include skilled in re-engineering, developing and implementing cloud migration/ adoption strategies in alignment with business objectives. Particularly interested in API Management, Microservices, DevOps and challenges around it. Lengthy leadership experience, managing offshore and onshore resources. Excellent oral and written communication skills

- Managing end-to-end Project Life Cycle, estimation, requirement gathering, gap analysis, testing, planning risk responses & contingency planning by leading distributed teams
- Developed solutions and lead the teams for cloud migration from legacy on premise applications to cloud (both AWS and Azure)
- Supervised the design and development of distributed applications using snowflake with optimized computations.
- Designed, developed and implemented CI/CD pipeline Jenkins for multiple projects.
- Increased system uptime for by developed automated monitoring system for fin-tech customers using Amazon CloudWatch.
- Preparing detail Project Plan including scope, schedule, budget, quality and staffing plan; created project charter by capturing high level descriptions of project features, constraints and milestones
- Developed product architecture and played key role in executing the delivery.



- Designing detailed technical components utilizing high-level architecture, design patterns and reusable code, considering real time constraints, functional requirement & non-functional requirements
- Reviewing UAT cases; facilitating triage meetings and reconciling bugs as reported in TFS; reviewing deliveries from the UX Team, providing appropriate feedback and obtaining stakeholder approvals on the delivery
- Conducting review sessions with client for obtaining sign-off; providing analytical support for system migrations and consolidations; identifying processes and information technology required to introduce the recommendations
- Rendering technical guidance and leadership to fellow team members in area of expertise; conducting annual performance reviews for team members; developing mechanisms for resolving team conflicts

PROJECTS

Architect/Developer, Algorithmic Trading Platform - Chanakya

Since Sept 2021

Environment: Python on Raspberry-pi, AWS, Azure, Telegram bot

Modules: Ideation, Evaluation, Design, Implementation, Scalability

Description: The objective of this product is to develop an offering for algorithmic trading platform in the FinTech space. This is a powerful platform for traders looking to make trades faster and more accurately, the HFT (HighFrequencyTrades). It is developed using Python with distributed architecture. The trading signal generation logic is built on the charting platform like, trading-view. The core decision making engine is developed with python and places the trades on the broker platforms using the broker APIs. This core engine can be deployed on AWS, Azure cloud, the small foot print is deploy-able on stand-alone Raspberry-pi. Exploring Azure ML integration for generating trading recommendations based on the live market data. Also extended access of the system is enabled to telegram chat, with bot interface.

Technical Lead and product architect, APD communications-Cortex

Apr'19 - Apr'22

Environment: C#, .Net, Delphi on Windows, TFS and Azure cloud, Virtualization Products (Hyper-V & VMware)

Modules: Cisco Telephony, Telephony gateway and GUI

Description: Cortex Integrated Communication Control System, that places all related hardware - radio, telephony, CCTV and talk groups onto one screen. It enables rapid communication by bringing radio, telephony, CCTV, and more, together on one screen. In doing so, Cortex helps public services do the things you do every day more easily and efficiently.

The Cisco telephony modules deals with handling of call with Cisco telephony infrastructure. With client-server architecture the operator will interact with GUI application which will communicate with Cortex server and in turn with telephony gateway. Also involved with handling of legacy applications developed in Delphi. Developed using .Net core MVC capability and Implement modern web based applications using Cloud native services. These applications communicates with COM-based interfaces. Involved in the design and deployment of the services on to Azure cloud using ansible scripts. Building Use cases for Cloud network and security practice. Lead the team to automate the entire development process with CI/CD pipeline and developed the progress and status dashboards.



Sr. Technical Lead, solution architect, development and release management, EntertainmentPartners-Residuals Services & IPS

Feb'17-Mar'19

Environment: C# and .Net, on Windows

Modules: Residuals Services of database interacting applications

Description: Entertainment Partners (EP) is the global leader in entertainment payroll, residuals, tax incentives, finance, and other integrated production management solutions. With a comprehensive view of the complexities of production, EP offers a full range of integrated products and services designed to increase productivity and decrease costs. Entertainment Partners offer solutions every step of the way, across the globe. Residuals forecasting, contract interpretation and payment processing involves payments made to key people who were involved in the production of a show to compensate them for any use of the show beyond its initial use. These applications deal with complex agreements and business logic to process the payments with C-ISAM database. IPS is the core Payroll processing system deals with production and residuals payrolls. Re-platform legacy workloads to cloud native services. The functionality is implemented using .Net core MVC and 3rd party DB providers.

Technical Lead, product architect, Product development and Release Management, DataDirect-OpenAccess SDK, Driver development kit

May'11-Feb'17

Environment: C, C++, Java/J2EE Windows, UNIX(es), TeamCity, Perforce, AWS and cloud data sources

Modules: OpenAccess SDK product

Description: DataDirect OpenAccess SDK allows developing custom drivers in ODBC, JDBC, ADO.NET or OLE DB.

Using the SDK customers can quickly integrate data across any C, C++, Java, .NET and C# applications. DataDirect OpenAccess SDK makes any data source SQL accessible and is the industry's leading custom driver development kit, enables you to implement data-source specific code using just 12 functions. Open access to proprietary file formats or APIs and make them SQL accessible from ODBC, JDBC, OLE DB, or ADO.NET compliant applications. The benefits include Broaden data connection and application platform options, Expand developer knowledge and capabilities, Increase development productivity with DataDirect OpenAccess SDK. Manages all the product development and release engineering. Played a role of scrum master with sprint planning and sprint execution for completing all the sprint stories. Lead the migration to setup for product build infrastructure and for CI/CD with Perforce with TeamCity products. Also handled setup of centralised logging with kibana for cloud based offerings of the product features. applications, network and security assessment and designing the cloud environment.

Architect, Design and Coding, Open Edge-Data Servers

Jul'06-Apr'11

Environment: C, C++, HP-UNIX & ORACLE

Modules: Data Servers

Description: OpenEdge is the flag ship RAD (Rapid Application Development) tool. This product is widely used by many application partners and end customers across various domains. OpenEdge is supported on all the Operating Systems. It has progress database embedded with OE. The proprietary 4GL / ABL (advanced business language) is to be used with OpenEdge. The Dataservers component of OpenEdge enables the customers to extend their business logic to work with and communicate with any foreign databases like Oracle, MS-SQL Server or ODBC compliant databases. Dataservers help in understanding the ABL to foreign databases by converting ABL to SQL specific queries enabling the foreign databases to understand. Distributed configuration using client-server setups are supported using Dataservers. Developed many complex features for the product like log enhancements



with milli / micro second accuracy, Unicode support, complex unique-id / sequencer on SQL server database. Resolved many complex customer issues related with client server, appserver, data dictionary core module functionality and interfaces.

Design, Coding, Portal Software (Infranet) Billing Solutions

Sep'04-Jun'06

Environment: C, C++, HP-UNIX & ORACLE

Modules: Platform

Description: Portal Software provides flexible billing and subscriber management solutions to enable organizations to monetize their voice and digital transactions. Portal's convergent billing platform enables service providers to charge, bill, and manage a wide range of services via multiple networks, payment models, pricing plans, and value chains. Some of Portal's customers are Vodafone, AOL Time Warner, Deutsche Telekom, TELUS, and NTT, CHINA Telecom.

Platform module deals with basic and essential technical tasks of the Infranet product. It mainly comprises of Connection Manager (CM), Data manager (DM) for database support. It supports databases like Oracle, DB2 and SQL server. It's been developed in C/C++. All application code is built on "top" of this Framework. This product supports distributed N-tier Architecture.

Desingn, Coding, and Testing, BMP-MO (Business Maintenance Platform Managed Objects)

Jun'03-Aug'04

Environment: C++, NMAKE, HP-UNIX & ORACLE

Modules: MO interfaces

Description: The Business Maintenance Platform (BMP) is a complex, mission critical application, which achieves best in class in all categories. It is the largest client-server application ever built by AT&T. BMP is an integrated maintenance platform to support Business Market customers across all services and it supports multiple services with different processes and technologies. The Managed Object (MO) server is the centralized data repository for all locally maintained service-related data. The objective of the MO server is to provide timely and accurate data for maintenance functions as well as provide various graphical display features of the data. Involved in the design, coding and testing for enhancements to MO interfaces.

Coding for interface applications and testing, SDM (Service Delivery Manager)

Jan'03-May'03

Environment: C++, NMAKE, HP-UNIX, INFORMIX

Module: SDM-Interfaces

Description: Service Delivery Manager (SDM) is a work management support system which consists of a set of applications, residing on a Web-based Platform. SDM supports the re-engineering of work-centers by consolidating the provisioning of multiple voice services on a single platform. It has modules like ETM (Event Tracking and Management), SRPF (Service Request Processing Function), SRI (Service Request Inquiry), CWL (Common Work List) and UP (User

Profile). This has interfaces with many of the applications such as OT-USM, PARS, and Legacy ordering systems.

Involved in P2215 project for coding and testing phases, which includes interfacing with various BPP systems.

Wrapper developement, Porting, coding in imake, Carma (Credit and Risk Management Assessment)

Sep'02-Dec'02

Environment: C++, imake, Linux and Sun-Solaris



Modules: Carma

Description: CARMA, Credit and Risk Management Assessment is a Client Server Application that provides market, credit and operational risk management of Fidelity Capital Markets principal and agency trading businesses. Server component of CARMA currently runs on Solaris environment and the objective of this project is to port CARMA server component from Solaris to Linux environment. Involved in executables creation also.

Development, Enhancements & Maintenance, Protean

Jul'00-Aug'02

Environment: VC++, SQL-Server, Oracle, Visual Basic, Clearcase, Visual C++, Windows NT

Modules: FrameWorks

Description: Protean is an ERP product specifically meant for process industry. It is extensively developed in VisualC++. This contains Production, Inventory, Customer Order Management, Plant Planning, Scheduler, Costing and Financials modules. Protean FrameWorks provides the base level functionality to all operational modules.

FrameWorks deals with basic and essential technical issues like Memory management, Security, Database connectivity, transactions, Automation of business objects, System Services, Tasks scheduling and Integrating with third party products. It consists of stack with layers like User Interface, Application and Database. It's a suite of C++ class libraries and a variety of environment specific development tools. All application code is built on "top" of this Framework. Through customized classes, via ODBC database session/connection, database transactions are managed. UNICODE to support languages such as Japanese with a completely different character set. Supports N-tier Architecture. It also deals with database creation and migration to higher releases.

Enhancement and testing, OPCVU

Dec'99-Jun'00

Designation: Module leader

Environment: Visual C++, Windows NT, Visual Sourcesafe

Description: OPCVU is a complex electronic warfare system, which works in the very high, and ultra high frequency range. It is developed in VC++ on Windows NT. This application handles electronic devices like receivers, antennas and communication links like General Purpose Interface Bus (GPIB), Transputer link and serial links. The system communicates with other systems through TCP/IP sockets. Also involved in the programming of Threads, Processes and synchronization.

Coding for serial communication, enhancements and testing, EGPDS

Feb'99-Nov'99

Designation: Team Member Leader

Environment: C, VC++, iRMX and Windows

Description: EGPDS is a complex real time project done in C, VC++ using iRMX and the windows operating systems. It concentrates on keeping track of valuable data captured from two electronic devices continuously. One is on RS-232

link and other is on Ethernet link. The project comprises of a Real time system (RTS) in C-language using iRMX operating system and the GUI in VC++ (Windows operating system). All the calculations are done in RTS according to the algorithm then send to the GUI for presentation. The health of devices can be verified online using BITE, and diagnosis of devices can be done.



EDUCATION

Bachelor of Engineering in Computer Science & Engineering from Osmania University, Hyderabad in 1998

