Atul Pratap Singh

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Objective

I'm looking for an exciting and challenging career as an **Engineering Leader** role as Tech Architect, EM or equivalent profile in engineering teams for next-generation Technology Products/Solutions, which can utilize my skill-set of product development through path-finding, research and analysis.

Career Highlights

- ★ Seasoned Engineering leader with **15+ years in building Internet scale and Enterprise products with 9+ years in leading, mentoring, high-calibre teams**.
- ★ **Domain Exposure:** eCommerce, Billing, Reward, Payment, Telco MVNO, UCaaS, Security and Identity Management, Directory Technology, Chrome Extension, NPAPI, Schema Design.
- ★ **Protocols and related Products:** SPNEGO & SAML based SSO, NaCl based Chrome Extension, LDAP, Kerberos, Oracle Database ASO EUS, Active Directory, eDirectory, Novell KDC, MIT KDC, SAMBA and Novell DNS, Yahoo Hyperdrive design.
- ★ **Languages & Platform:** Java EE, Node.js, Golang, C/C++, Scripting, Spring Framework, Spring-Security, Hazelcast distributed cache, Redis, Docker, Kubernetes, Eclipse-Link, Tomcat, MySQL, Mongo, Oracle ASO, Oracle Triton, SUSE Linux, OES, Wireshark, MMC, Valgrind.
- ★ **Commitment and Teamwork:** Recognitions like 'Star Award' (2 times), 'Feather in the Cap', 'Work an Extra Mile' and 'Excellent Contribution' in the team.

Experience

As **"Technical Architect"** for [**Circles.Life, Singapore** | **Circles Shop Page**]   [Aug 2018 - Till Date]

Circles.life is disrupting the Telco industry. Based out of Singapore, we are the world's first fully digital telco.

- ❏ Design and develop the core platforms like Reward as Service, Notification Engine, Billing as a Service, eWallet, Policy and Sphere from scratch by following the Design Principles, Microservice architecture and standards to have future ready performance, capacity and scalability.
- ❏ Designed the Information model, End-points (Admin & User facing) and Event driven architecture for Reward claim processing. An effective messaging interface with auto retry flow. A generic design to integrate with external vendors to distribute their vouchers.
- ❏ Designed the Activity, Transport, Priority and Template based generic information model for Notification engine which can allow provisioning transports, Templates. A generic design for dynamic routing of traffic based on providers rate.
- ❏ Optimization - Flexible, elastic and effective cache loading to optimize the space and latency for concurrent calls.
- ❏ Scaled the scheduler throughput and designed a batch based generic event scheduling platform.

As **"Sr. Technical Lead"** for [**WalmartLabs, Bangalore** | **GIF**]   [Oct 2016 – Jul 2018]

A highly scalable global order fulfilment system which is used at stores and other customer touch points, with the capability to prioritize, pick, stage, consolidate, dispense and audit customer orders.

- ❏ Designed the "Take Action" platform which allows widget-based personalized pages and can be configured at market/store/user level. Space optimised Information model to store historic information.
- ❏ Designed & implemented the caching layer framework which can integrate any cache lib underneath.
- ❏ Led the Holiday Readiness for Walmart US holiday sales 2017 from Bangalore.
- ❏ GIF UI click-stream solution which identifies usage by each market/store/user.
- ❏ Designed and implemented Centralized data purge and retention strategy for transactional data.

As **"Sr. Staff Engineer"** for [**Polycom, Bangalore** | **RP Web Suite**]   [Apr 2013 – Oct 2016]

RP Web Suite is a first-of-its-kind video collaboration and conferencing software solution that enables businesses to collaborate with other businesses – or individuals – easily and securely, independent of application, system, or device.
- ❏ A cloud enabled, HA, Secure, AD compatible, ReST based architecture using Java, Angular-JS and node.js primarily. Chrome extension for Non-NPAPI support i.e. NaCl based design.
- ❏ SSO (based on Kerberos & SAML) solution for the product using spring-security. Integrating the RP Web Suite with Salesforce for a SAML based SSO authentication.

As **"Technical Lead"** for [**Yahoo SDC, Bangalore** | **Yahoo Finance**]   [Sep 2011 – Mar 2013]

Yahoo! Finance is a media property that is part of Yahoo!'s network. It provides financial news, data and commentary including stock quotes, press releases, financial reports, and original content.
- ❏ Onboarding KR, HK and TW finance sites on global Y! Finance code base.
- ❏ Y! Finance features like Schema Design, Autocomplete Indexing, Symbol Lookup, hyperdrive, chartapi, Yahoo Traffic Server.

As **"Sr Member Technical Staff"** for [**Oracle, Bangalore** | **ASO**]   [Oct 2010 – Aug 2011]

Oracle ASO is a security module which provides advanced security options as well compatibility options for various types of authentication and authorization in various deployment use cases.
- ❏ *ZTK* layer of ASO, which abstracts out the lower level authentication mechanisms.
- ❏ *Worked on Kerberos as one of the authentication mechanisms in the ASO layer.*

As **"Sr Software Engineer"** for [**Novell, Bangalore** | **DSFW**]   [Nov 2007 - Oct 2010]

DSFW provides the ability to access both Novell Linux and Microsoft file and print services while leveraging the existing user store (eDirectory or Active Directory) without multiple logins or user synchronization activities.
- ❏ *Selective Authentication, Trust Validation, Domain NetBIOS support, Multiple Trees in a forest, DNS configuration in ADCs, Application Partition, kpassword.* Simulation tool for virtual logins
- ❏ *Various Kerberos* products suits, *eDirectory Password Policy, Various Trusts, Group Policies* and *SASL Mechanisms* like GSSAPI, SPNEGO and EXTERNAL.

As **"Program Engineer"** for [**Lohia Starlinger, Kanpur**]   [Jul 2004 - Jun 2005]
- ❏ Machine controller programming and customizations.
- ❏ Supervision of Erection, Commissioning and Troubleshoot of Machine at the customer sites.

Education

Year	Course	Institute	Grade/Perc
2007	**M.Tech (IT)**	I. I. I. T., Bangalore	**2.91 / 4**
2004	**B.Tech (Electronics & Communication Engineering)**	Madan Mohan Malviya Engineering College, Gorakhpur	**70%**
1998	**Intermediate (U.P. Board)**	Mohini Adarsh Inter College, Badhon (Aligarh*)*	**80.2%**
1996	**HighSchool (U.P. Board)**	Mohini Adarsh Inter College, Badhon (Aligarh)	**79%**

Academic Projects

- ***Jnan Sanjeevani – A patient Monitoring System***   *[Feb 2006 - Apr 2006]*
  This project implemented the overall clinic processes including doctor, patient registration, prescription, lab test, health encounter and procedures. This has been deployed at Dr. Srikantha, Samtvam Clinic, Bangalore. This project boasts of adopting good design practices and has used a set of DP such as Factory, Abstract Factory, DAO and Bridge.

- ***Simulation of Round Robin Scheduling***   *[Sep 2005 - Dec 2005]*
  This project attempted to simulate an algorithm. In Round Robin, all threads (really their process control blocks) sit in a FIFO queue. In a multi-level feedback scheduler, it used 4 queues instead of 1. Each queue is assigned a priority level. The queues were numbered 0 through 3, with 0 being the highest priority, and 3 being the lowest. Also for each quantum value, it computed the Completion time, Throughput, Average job elapsed time and Average job waiting time.

Research Work at Microsoft Research, Bangalore under Dr. Amitav Das

Intelligent Signal Processing   *[Sep 2006 - Jul 2007]*

- Text Independent Speaker Recognition - using Vector Quantization
- Image Compression - using Scalar & Vector Quantization,
- Face Recognition using PCA/LDA (Study Only)
- Ultra-Low Bit Rate Speech Coder - Started here with the LPC-10 based approach. Taking code for LPC10 from my earlier work, I started having: VAD, VUV decision and F_o values in the form of a text file, later I replaced this with the analysis part. Then I focused on various forms of matrix quantization of LSP and I implemented the best 2-3 methods related to MELP from a list of IEEE papers.
  Tools: Matlab-7.0, PRAAT.

Patent Application

G.N.S. Prasanna, Ritesh Kumar, Mayank Raj, Atul Pratap Singh, K.R Sarma, G.S.S Murthy et. al, "Broadband HF/VHF/UHF Communication on Power Lines", PCT/IN2006/000223 , Jan, 2007

Areas of Interest

- Public Administration and Policy formation.
- Thinking of & Developing solutions to Practical Problems
- Security and Identity Solutions.
- Vision Systems and Communication Engineering
- Current Affairs, Reading Technical Papers and News, Solving Puzzles.

Achievements

- Recognition like **SPOT Award, Star Awards** and **Breakthrough** award from the Product Architect.
- Qualified the written competitions like **ISRO, HAL**.
- GATE Score of IIIrd year is **92.07** percentile.
- 1st **Position** in Intermediate in Aligarh District.
- 2nd **Position** in High School in Aligarh District.

I hereby declare that the information furnished above is correct to the best of my knowledge.

(Atul Pratap Singh)