Anuraag Godika

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SUMMARY:

21+ years professional experience in the software industry. Deep knowledge of India and Indian conditions. Technology leader with a long term vision. Personally created client-server, enterprise, desktop and mobile Applications, Search Engines, Realtime analytics pipelines and Machine Learning based systems.

I am skilled in creating self-motivated teams and fostering innovation.

SKILLS:

Java Ecosystem
(Spring, Concurrency, Rest Microservices)

Front End
(Javascript, HTML, CSS, jQuery, React)

Python
(numpy, pandas, scikit-learn, keras, tensorflow)

System Design

AWS/Cloud

Servers
(Tomcat, Apache, Nginx)

Databases
(SQL, MySQL, MongoDB)

ML/AI
(DL, RL, SVM, NLP, Naïve Bayes, Chatbots, NN)

DevOps

Search
(Solr, ElasticSearch)

Cache/Tools
(Redis, Memcached)

Monitoring Tools
(Splunk, Graphite/Grafana)

Message Queues
(JMS, Kafka)

EDUCATION:

PG Diploma in ML / AI (IIITB – In Progress – 3.9/4.0 at present)
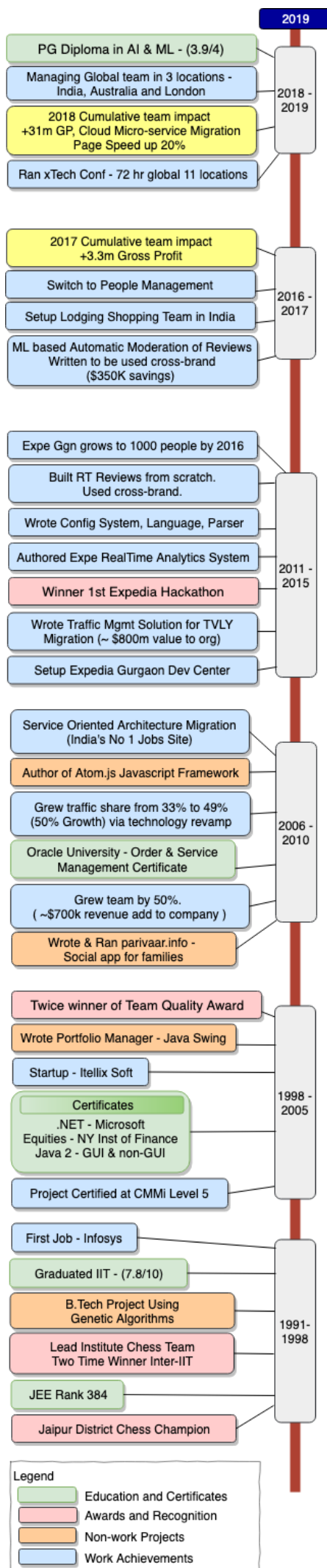
B. Tech. in Chemical Engineering from IIT, Bombay (1994 – 1998) CPI – 7.75/10

AISSCE (CBSE XIIth, 1993) – 90%

AISSE (CBSE Xth, 1991) – 83.5%

ABOUT ME:

- Leading Geographically distributed team in 3 locations. My teams cumulatively added 35m in gross profit in 2017-2018.
- Built a suite of systems for collecting, analysing and serving User Generated Content across 5 lines of business and 4 brands, utilizing automated ML models for classification and insights and serving 200 million requests per day.
- Wrote a configuration system, language and parser that enabled ramp-up of A/B Tests from 15 to 450+ in 4 years, and supported a 5X increase in traffic served.
- Setup Development center of world's largest OTA in India. Helped it grow to a strength of 1300+ people over 6 years.
- Architected and implemented services based distributed architecture for India's most heavily used internet site, achieving better scalability and reliability, and improving performance by 30%.
- Provided technology leadership and ideation to grow a real-estate web portal to clear market leadership in terms of traffic share and revenues. Traffic share increased 50% (from 33% to 49%)
- Jaipur District Chess Champion in 1993. Competed in Under-17 Chess Nationals in 1992.
- Sports secretary for Chess at IIT Bombay
- Author - study on using Genetic Algorithms to optimize throughput of a batch isothermal reactor

Timeline

2019

2018 - 2019
- PG Diploma in AI & ML - (3.9/4)
- Managing Global team in 3 locations - India, Australia and London
- 2018 Cumulative team impact +31m GP, Cloud Micro-service Migration Page Speed up 20%
- Ran xTech Conf - 72 hr global 11 locations

2016 - 2017
- 2017 Cumulative team impact +3.3m Gross Profit
- Switch to People Management
- Setup Lodging Shopping Team in India
- ML based Automatic Moderation of Reviews Written to be used cross-brand ($350K savings)

2011 - 2015
- Expe Ggn grows to 1000 people by 2016
- Built RT Reviews from scratch. Used cross-brand.
- Wrote Config System, Language, Parser
- Authored Expe RealTime Analytics System
- Winner 1st Expedia Hackathon
- Wrote Traffic Mgmt Solution for TVLY Migration (~ $800m value to org)
- Setup Expedia Gurgaon Dev Center

2006 - 2010
- Service Oriented Architecture Migration (India's No 1 Jobs Site)
- Author of Atom.js Javascript Framework
- Grew traffic share from 33% to 49% (50% Growth) via technology revamp
- Oracle University - Order & Service Management Certificate
- Grew team by 50%. (~$700k revenue add to company)
- Wrote & Ran parivaar.info - Social app for families

1998 - 2005
- Twice winner of Team Quality Award
- Wrote Portfolio Manager - Java Swing
- Startup - Itellix Soft
- Certificates
  .NET - Microsoft
  Equities - NY Inst of Finance
  Java 2 - GUI & non-GUI
- Project Certified at CMMi Level 5

1991- 1998
- First Job - Infosys
- Graduated IIT - (7.8/10)
- B.Tech Project Using Genetic Algorithms
- Lead Institute Chess Team Two Time Winner Inter-IIT
- JEE Rank 384
- Jaipur District Chess Champion

Legend
- Education and Certificates
- Awards and Recognition
- Non-work Projects
- Work Achievements

Experience Summary :

Expedia (**Feb 2012 – Current**) – **Director of Engineering**

Expedia is the world's largest online travel company, operating in more than 70 countries serving customers speaking more than 40 languages. Some of my contributions as a senior individual contributor and Director are listed:

- Lodging Shopping – Hired and ramped up Lodging Shopping team in India. Our stack serves tens of millions of webpages every day.
- UGC – 46m Hotel Reviews, 26m RTR, 200m requests per day
- Community Development – There was a monthly tech-talk, a QA Forum, a UI development Forum and technical conferences. Ran LShop Academy, xTech Conference (72 hours, 11 locations)
- Ramping up Gurgaon Development Center – Starting with just 3 people in 2012, today the India Dev Center at Gurgaon has a strength of ~1400 people.
- BEX India Leadership Team member
- Promotion Bar Raiser Team Member

InfoEdge India Ltd (**June 2008 – Jan 2012**) – **Sr Engineering Manager**

Infoedge is India's first publicly listed Internet company. The flagship product, Naukri – a job search engine, is market leader by a wide margin. 99acres.com is India no.1 real-estate portal and jeevansathi.com is a well-known portal in the matrimony space.

- Rewrote the search engine powering 99acres property search
- Built thrift based Service Oriented Architecture – resulting in 30% improvement in performance of the application.
- Application Generation Framework (PSU) – Created a code generation framework to programmatically generate a complete end-to-end solution for management of specialized job postings.
- Natural Language Search for properties.
- Performance improvements
- Dating Profile Match Algorithm
- Chat Server
- Inbox – A highly distributed, highly scalable message store designed to persist about billions of messages and allow a threaded conversation view of each communication between any two users of the service.

British Telecom (**Mar 2006 – June 2008**) – **Agile Consultant**

- NEO – workflow orchestration for provisioning of new orders, network faults and system alarms.
- Contacts – Common address book. There was support for chatting across major chat vendors (yahoo/google/msn/aol/xmpp-jabber), emails, voip through skype or BT Communicator.

(**June 1998 – Mar 2006**)

(Rest of the experience not listed in the interest of brevity. See below, for detailed description of all work experience.)

Expedia (**Feb 2012 – Current**)

Expedia is the world's largest online travel company, operating in more than 70 countries serving customers speaking more than 40 languages. Some of my contributions as a senior individual contributor and Director are listed:

- Lodging Shopping – Hired and ramped up Lodging Shopping team in India. Contributor in rolling out Squad based working model and PWA based website. Ran the Architecture Guild. Improved the resiliency of container based microservices stack. Conceived, built and launched a Plugin System for microservices – part of a long term vision to build self-healing systems. Our stack serves tens of millions of webpages every day.
- UGC – Designed and built a suite of systems for collecting feedback from users. Customer reviews are collected, starting with hooking into the realtime stream of booking events. Text is analysed for finding insights. A Spark-ML based application is used for automatic moderation. Data is made available for searching via an ElasticSearch installation along with Kibana dashboards for analysts and product team.
- Real-time Analytic Pipeline – Developed a system for collecting realtime events from various applications. It was a hub-and-spoke model that kick-started realtime data analytics at Expedia. I also built Chef scripts for Storm and its dependencies and the first Storm topologies for generating insights from the real-time stream of data.
- Runtime Configuration System – A config system that allows for adapting the behaviour of applications based on runtime context (as opposed to build-time context or deployment environment). This enables development behind feature flags which can be turned on or off anytime without requiring re-deployment of code.

Community Development – Ran initiatives for building technical communities and sharing of knowledge. There was a monthly tech-talk, a QA Forum, a UI development Forum and technical conferences.

Ramping up Gurgaon Development Center – Starting with just 3 people in 2012, I played a key role in ramping up the India Dev Center at Gurgaon to its present strength of ~1000 people.

Sr Engg Manager, Tech Architect - InfoEdge India Ltd (**June 2008 – Jan 2012**)

Infoedge is India's first publicly listed Internet company. The flagship product, naukri, is market leader by a wide margin and is the most well known brand in India for jobs. 99acres.com is India no.1 real-estate portal and jeevansathi.com is a well-known portal in the matrimony space. As Engineering Manager for 99acres and jeevansathi, I got the opportunity to work closely with Senior Management, Sales, Marketing, Product, Design and QA teams. As leader of the Platform Development (Prayogshala) team for naukri, I was responsible for technology leadership including governance and innovation. Some of the high-impact projects are listed:

Search Engine - We rewrote the search engine powering 99acres property search and built an infrastructure that allows building multiple search engines based on differing technologies, and swapping them very easily. As a result, site search can continue to function when sphinx engine is being upgraded, as it can be switched to Mysql full text search engine on the fly. Special non-standard features are supported by this infrastructure – including a relaxation engine, "bucketing" on the basis of freshness, and equal coverage for each unique advertiser.

Thrift based Services – Converted the traditional PHP type architecture of the most heavily used application in the company to a services based architecture. Communication between PHP front-end and Java based service was achieved through thrift. This resulted in a 30% improvement in performance of the application. The new architecture was more efficient, consuming less resources and processing bandwidth, while parallelizing operations as much as possible. It needed a less powerful database server for peak load conditions. Highly distributed and fault-tolerant, this architecture provided better scalability and failover characteristics.

Application Generation Framework (PSU) – Created a code generation framework to programmatically generate a complete end-to-end solution for management of specialized job postings. The framework supported GUI based generation of the Job application forms, defining business rules, a job application management and search engine. Once this framework was ready, it became possible to create customized white-labeled recruitment applications each with its own special logic and rules in a matter of one or two days.

Keyword Search - Natural language free text search was developed for properties. The algorithm parses and interprets the text typed by the end user, and automatically selects parameters like locality and bedroom preferences. In the case of multiple matches, it can suggest alternatives to the user. The ability to understand wrong spellings and suggest suitable corrections was also investigated.

Performance - We integrated multiple technologies for increasing performance. Support was added for caching via memcache and cache_lite. For storing and serving media files, a distributed file system was incorporated. Research work was undertaken for choosing the right engine between MyISAM and InnoDB for large and highly used tables. Server hardware and application architecture were modified for improved performance. Nginx was used as a reverse proxy over apache to serve static content efficiently.

SEO and Security - Rewrote various parts of the application with a view to improving the page inter-linking and content for better SEO. At the same time, security holes were plugged, especially to avoid attacks related to SQL Injection and Cross Site Scripting.

Match Algorithm - Jeevansathi service is known for its high quality matching engine. This was becoming more difficult to maintain and started having performance bottlenecks. We rewrote the engine to improve performance and used Strategy and Template Patterns to make it easier to modify. The matching engine can find suitable matches based on explicitly specified criteria or the behavioral trends of the user.

Chat - Implemented a xmpp chat server and browser based chat implementation for users of jeevansathi matrimonial platform. This service could interoperate with google talk and it was possible to extend it to other chat providers in future.

Inbox – A highly distributed, highly scalable message store designed to persist about billions of messages and allow a threaded conversation view of each communication between any two users of the service.

Research Efforts – Keeping an eye on new technologies, new ideas and deciding when or whether to include them in the software stack that we manage. As a part of these activities, we evaluated cutting edge software like MongoDB and Thrift, besides other things. Thrift went on to become the basis of our move to services oriented architecture. MogileFS was used as the backbone for massively scalable, reliable storage for CVs in binary format.

Project Manager, Agile Consultant, Technical Architect at British Telecom **(Mar 2006 – June 2008)**

British Telecom is the largest telecommunication services firm in UK. They have a very large physical network with last mile connectivity to the remotest of areas. Their network is used not only by their own telephony and broadband services, but also by other service providers to reach out to remote consumers and for the last mile connectivity. The most interesting aspect of this assignment was by virtue of British Telecom's position as an organization outsourcing software development to vendors. A different perspective is needed to efficiently develop software with geographically distributed teams each moving independently and having its own agenda which may not necessarily align in perfect harmony with each other. The projects I got involved with are listed -

NEO - Neo was a process modeling engine based on Amdocs clarify. It occupied a very important position in the enterprise SOA architecture of BT, being responsible for orchestrating the workflow of provisioning for new orders, network faults and system alarms. It sat between all the systems as a central hub managing the flow of business processes. On the upstream were CRM and Network Monitoring applications, and on downstream were network configuration and fault rectification systems. It also talked with client applications for field engineers, and partner applications. This system is unparalleled in BT for task-flow orchestration or, in other words, business process management.

Agile Consultancy - Implemented Agile Project Management methodology across a geographically distributed team comprising 2000 people in BTs Service Management Platform.

Contacts - A convergence application that brings together the various ways that people today interact with each other on the internet. There was support for chatting across major chat vendors (yahoo/google/msn/aol/xmpp-jabber), emails, voip through skype or BT Communicator. All the address book contacts from various sources like mobiles, gmail, yahoo mail, outlook could be imported and managed from one platform.

Project Manager at Headstrong Consulting LLC **(2004 – 2006)**

Trade Flow Manager – An application responsible for capturing the flow of trades through a banking system, was developed by me and my team. Part of development effort involved migration of the database from Sybase to Oracle which enabled the project to handle a much larger volume of transactions with better fail-over features. Development efforts include major additions to project's codebase for handling new Business Units, Program Trading, Syndicate Trading, interfacing with legacy applications running on AS400, and overhauling the user interface.

The team has twice won the Software Quality Achievement award over the duration of the project.

During my tenure, the team grew to 40 resources at its peak, the largest single project team in Headstrong Bangalore.

Lead Architect at Itellix Solutions, WebTek Software **(March 2001 – Oct 2004)**

WebTek was a fully owned subsidiary of Dresdner Bank, Germany developing investment banking software for its parent organization. Itellix was an offshoot of WebTek which came into existence as a result of the bank deciding to focus on its core areas, i.e. banking.

Desktop Portfolio Manager – Solely developed by me, the portfolio manager enabled people to manage their equity investments. They could create watchlists, follow stocks, see live charts where data was mashed up via Yahoo Finance APIs.

Sensiba – Reporting product on the cloud, before the term cloud was envisaged and came into popular usage. An online integrated environment for defining, editing and running reports over vast amounts of data, this product featured GUI-based creation of reports, and simplified views over databases consisting of just business entities, thus hiding the complexities of joins and tables from sales and marketing people who are not tech savvy. Due to its pluggable nature, the product could be set up so that it became a single homogenized reporting environment for disparate systems.

CFD – An online system for maintaining, tracking and closing Contract For Differences agreements for equities as well as underlying physical instruments.

ProjMan - An internet based system for project life-cycle monitoring and tracking. It was an integrated work-bench modelling various activities involved during projects, like task allocations, issue and milestone tracking, project and sub-project hierarchy and project roles.

Senior Software Engineer at Infosys Technologies Ltd **(June 1998 – Feb 2001)**

Infosys is amongst India's biggest software companies. I had joined the organization at a time of rapid expansion, as a fresh out of college graduate. Apart from a 3 month training period, I was involved in two projects. One was for VISA – to upgrade their suite of credit card management software, heretofore running on Cobol/Mainframes, into a homogenous GUI based system. The second was for one of America's big clothing retailers having their own label and dress designers. Our application was the main management center, enabling designers to upload designs and collaborate with manufacturing and retail.