
ARNAB DEKA

SOFTWARE DEVELOPMENT ENGINEER

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arnab.deka@gmail.com
arnab-deka.com

Summary

Over a decade of delivering quality software in diverse environments like AWS, Amazon.com, LivingSocial and Goldman Sachs. Extensive experience with AWS and serverless architecture.

Skills

Versatile Engineer

Extensive experience and balanced skills in user-interfaces, web services, servless architectures and distributed computing in high-scale and critical environments. Focus on understanding the needs behind customer's requests to derive successful products.

Focus on Quality

Focus on engineering excellence, honing on intuitions around usability/operational issues. Embrace and evangelize BDD/TDD with continous-delivery while building software to solve business needs.

Leadership & Collaboration

Self-starter with a passion to adapt and evangelize new technologies. Track record of successfully leading teams and executing individual projects. Love to collaborate and mentor.

Technical

AWS / web-services

Git

Java, Kotlin, Clojure

NoSQL/DynamoDB

Linux / OSX / cmd-line-fu

WebDev with Ruby, RoR

Serverless (λ , API-Gateway)

DevOps automation

MySQL, PostgreSQL

Experimented with

Python / Django

MongoDB / Riak

Perforce / CVS

Scala

Java / Struts / Oracle

Unix / Solaris

Machine Learning

Perl / Mason

Experience

Amazon Web Services (AWS)

Oct 2014 - Present

Senior SDE (Seattle & Vancouver): Lead Engineer of AWS Chatbot.

- Between 2014 and 2016, I led multiple projects in the high-scale critical world of AWS Console Platform.
- [AWS Chatbot](#): Started in 2016 as the first engineer. Working with Principal Engineers and Product Managers I launched a successful product in July'19, while building and growing the team (10+ today).
- In Nov'19 we launched the capability to [run AWS commands from Slack](#).
- Watch this space for more coming soon :)

Nilenso

Jul 2014 - Sep 2014

Senior Technical Architect (Bangalore)

While preparing to move back to the US, I worked with [Nilenso](#) to explore their product development ideas, immersed myself in Clojure, and helped flesh out the initial architecture of [Kulu](#).

- **Backend:** A Swagger based RESTful API built on Clojure, working on top of AWS (S3, SQS) and Elasticsearch and PostgreSQL, capable of running OCR on itemized receipts.
 - **Frontend:** A Rails website to manage user's receipts and visualize data.
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LivingSocial

Senior Software Engineer (Bangalore/remote)

Jun 2012 - Jun 2014

As a part of the Internal Apps team, I focused on making the deal production workflow and while improving quality/automation. Effective in a remote role, 10-hours away from most of the team, while still pair-programming!

- Designed and implemented the messaging sub-system and webapp that communicates with AmazonLocal via SQS/S3 and allows users to visually see and manage change requests. Described as "intuitive and flexible" by Product Manager, end-users delighted by UX and the time saved.
 - Infrastructure upgrades (ree to Ruby 1.9, Rails 2.3 to Rails 3) on massive Rails applications.
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Amazon Web Services (AWS)

Software Development Engineer II (Seattle)

Nov 2010 - May 2012

Built a Ruby/Rails platform for the AWS website and started re-architecting components of the site to use this platform. Influenced the team to use Ruby where appropriate and helped recruiting a great team of engineers.

- Lead the design and development of AWS website's contextual and faceted [search](#) component. Combined disjoint datasets in a generic way making new dataset additions easy. Widely appreciated by customers of all sizes and within AWS and got featured in the [AWS blog](#).
 - Re-architected the community-oriented components of the AWS website to make them much more customer friendly and usable. Developed a generic catalog framework that is re-usable across multiple areas ([EC2 AMIs](#) , [Developer Tools](#) , [Sample Code](#) etc.) and started the process of moving the catalogs to the new framework. Drove graphic design and UX discussions with design-teams. Experimented with pair programming and was perceived to be fast and very productive by the team. Code and test's quality was eye-opening for the team.
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Amazon.com

Software Development Engineer I & II - Supply Chain (Seattle)

Jan 2008 - Nov 2010

Started my career in Amazon as an SDE I and got promoted within a year. Helped solve complex business problems in supply chain by working with analysts, building software solutions and a varied mix of tools to make sense of the massive amount of data.

- Built a prototype to generate the Amazon.com S&OP forecast with a linear-programming model. Drove adoption by demonstrating that it produced better or in-line results compared to the manual S&OP (which takes 80 hrs/week of analysts).
- Drove adoption of automated-testing and BDD with tools like rspec/cucumber, while being the junior-most engineer. Evangelized other software engineering tools like git, jQuery etc.
- Developed a tool to analyze the amount of wasteful cross-dock happening in Amazon.com fulfillment centers. Designed it applying a binary-search technique to avoid inefficiencies in an API that made the tool 65% faster with no loss of accuracy.
- Developed a RESTful service to get Amazon.com fulfillment network's product-allocation configuration, previously a 2000+ line yaml maintained by SDEs. Also developed a webapp for analysts to make self-service, on-demand configuration changes. Reduced 4 hours/week of SDE operational work.
- Lead the development of a critical reporting webapp that showed alarming trends in terms of labor requirements in Amazon warehouses to cope with the US holiday-season demand.
- Wrote a tool to mine various Amazon data sources to find alternate inventory we could use to fulfill those last-minute "Santa orders". Coped with a very tight deadline and a lot of ambiguity.
- Wrote my first Rails app, in 2008, to hook into a backend system (that prioritizes/schedules inbound trucks into Amazon warehouses) to allow rare but critical manual overrides to the system's scheduling decisions. Estimated to save 120 hours of analyst and SDE time in Q4'2008.
- Wrote an in-house analytics tool to parse apache access logs to help us know more about our customers.

Infosys Programmer Analyst (Bangalore & NYC)

Jul 2004 - Dec 2007

Started off as a junior programmer in the Goldman Sachs account (in Bangalore and NYC) and went on to build software that caught the customer's eye, leading to major development efforts collaborating with client-side engineers.

- Designed and implemented a system (backend services, batch-processes, webapp) to handle a new SEC regulation for Short Sales. Acknowledged as a flexible and elegant solution to a challenging problem (complicated regulatory rules, real-time interaction with outside systems over EMS messaging). Learnt automated-testing during the project, finished with 93% coverage.
- Re-architected the Canadian and Lat-Am Clearance system with a team of 8 diverse engineers. Lead the overnight batch part of the project. Learnt and practised agile development style.
- Designed and implemented the CNS (DTC) Bulk Settlements component.
- Automated the NSCC Recap process at Goldman - freeing up a day per month of analysts.
- Wrote a tool to diff the team's live DB schema/triggers/stored-procs with source-code definitions. This helped the team avoid occasional, but critical accidents in production, much appreciated by the client.
- Kept Goldman's American Clearance systems running with a team distributed over 3 continents (support/maintenance/enhancements).

Community, Open-Source and Personal Hacker/Philosopher/Coach/Student

2010 - present

Giving back to the community in ways small and large.

- speaker at [GardenCityRubyConf](#) and [RubyConf Australia](#) in 2014.
- coach at [#RailsGirlsBLR](#) and RailsGarden in Bangalore (for students).
- somewhat popular (read: 50 Github stars) library for visual text diff: [jQuery.PrettyTextDiff](#)
- lots more open source [experiments](#), contributions and itch-scratching.
- regular at BRUG (Bangalore RUG) monthly-meetups.

Education

National Institute of Technology, Calicut, India
B. Tech., Civil Engineering — **6th** in a **class of 59**

2001-2004