

# Anshuman Biswas

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## About

Anshuman is a Sr. Engineering Manager at IBM. Having worked in Cloud Computing technologies for over a decade, Anshuman relishes the challenges involved with designing distributed systems. He is proficient at solving hard problems and finds it gratifying to design dev-ops driven simple, elegant and efficient solutions for complex systems. In addition to managing resources in a cloud environment, Anshuman enjoys applying economic constraints to maximize performance while managing costs. He likes to automate the menial parts of his developer life by automating anything repetitive.

## Experience

### **SR. ENGINEERING MANAGER | IBM | JUL 2017 – PRESENT | TORONTO, CA**

- Leading a team of developers building Orchestration products for Turbonomic
- Developing highly performant code that runs inside a customer data-center and monitors application performance
- Developing with **Java** and **Kubernetes** on a large software codebase that manages cloud and on-prem workloads
- Built an automated developer workspace to spin up VMs in local datacenter with **Terraform** and **Ansible**
- Built an integration test framework by extending the **Robot** framework to enable component level testing
- Evangelize and continuously improve software development practices
- Anticipate bottlenecks, make tradeoffs, prioritize tasks and meet deliverables while maintaining technical standards
- Drive integrations with third-party systems such as **ServiceNow**, **Terraform Cloud**, **Ansible Tower** and **Flexera**

### **SOFTWARE DEVELOPER | TREND MICRO | JUL 2016 – JUL 2017 | OTTAWA, CA**

- Backend Server management, performance tuning of Application Server and DB Server
- Build and test dev-ops pipelines for continuous integration and deployment using **agile methodology**
- **Java** for primary development. Manage a distributed application deployed on **AWS**
- Develop based on a **Micro-service** architecture and deploy using containerized mechanisms
- **Ansible**, **Chef** and **Jenkins** for maintaining a continuous integration and delivery pipeline

### **RESEARCH ASSISTANT | CARLETON UNIVERSITY | JAN 2012 – JUN 2016 | OTTAWA, CA**

- Extensive use of **OpenStack** and **VMWare's vCloud Director** for testing resource scaling
- **RESTful**, **SOAP Web Services** API Integration with **JAVA** for **OpenStack** and **AWS (EC2 and S3)**
- Use of **Python** and **Weka** for predicting data based on different machine learning algorithms

### **SOFTWARE DEVELOPER | RPSMARF | DEC 2014 – JUN 2016 | OTTAWA, CA**

- RPSMARF (<https://www.rpsmarf.ca/>) is a collaborative cloud web application to share analytics tools and data
- Responsible for moving IOT data from onsite to the Cloud to analyze using domain-specific tools
- Service Discovery using **SPARQL**. Making non-CLI tools available using an integrated remote desktop using **Guacamole**
- Responsible for deploying and monitoring resources on an OpenStack cluster provided by CANARIE
- Built an extensive platform with **Graphite**, **Carbon**, **Statd** and **Collectd** for monitoring infrastructure
- Frontend development using **AngularJS** and backend development using a **Python –Django** stack

### **CHIEF TECHNOLOGY OFFICER | NEAREST INC. | JUL 2012 – DEC 2014 | OTTAWA, CA**

- Nearest (<https://www.nearest.com>) is a hyper-local search engine to help local businesses target nearby consumers

- Built a real-time framework for commutation and search with PHP and Web-Sockets. Also Used *Meteor.js*, *Web-Sockets* and *WebRTC*
- Application deployed on a cloud environment with 'proactive' auto-scaling
- Used *Amazon Web Services (EC2 + RDS)* for production and an *Open Stack Cluster* for development
- Dev-ops oriented deployment with *Vagrant*, *Puppet* and *Chef* to ensure consistency. *Jenkins* for integration management
- Managed a team of 8 to meet weekly project deadlines

#### **SYSTEMS ENGINEER | TATA CONSULTANCY SERVICES LTD. (TCS) | SEP 2009 – JAN 2012 | BENGALURU, IN**

- Worked with different **data warehousing** solutions with SAP. Responsible for creating data models and reports
- Migrated locally deployed applications to the Cloud to leverage benefits of Cloud Computing at its infancy (2009)
- Worked in **SAP's ABAP** to manage *DataSources* and provide enhanced features to the Business Warehousing solution
- Delivered professional services to external Customers, from the initial detailed Solution Design, through to Implementation and Customer Acceptance customization, including proof of concepts, Stand-Alone and Inter-Operability Testing, Customer training and on-site support

#### **DEVELOPER | GLOBAL TRAVEL SOLUTIONS | AUG 2009 – SEP 2009 | MUMBAI, IN**

- Worked in the aviation industry to build an integrated travel portal using Google Web Toolkit

#### **INTERN | 2PIRAD | SEP 2007 – APR 2008 | KOLKATA, IN**

- Built a rudimentary data communication channel using an optical device and a rudimentary OSI layer

### Education

**PH.D. | ELECTRICAL AND COMPUTER ENGINEERING | 2019 | CARLETON UNIVERSITY**

**M.SC. | COMPUTER SCIENCE | 2009 | CALCUTTA UNIVERSITY, INDIA**

**B. SC. | COMPUTER SCIENCE | 2007 | CALCUTTA UNIVERSITY, INDIA**

### Skills

- **Languages** - Java Python C PHP JavaScript
- **UX** - AngularJS
- **Orchestration** - K8s MicroK8s MiniKube Docker Containerd
- **Databases** - MySQL Postgres Oracle MongoDB SQL Server Redis
- **Data Streaming** Spark Storm Kafka RabbitMQ
- **Frameworks/APIs/Libraries** – Spring Robot Node.js Meteor.js jQuery Django Laravel
- **Cloud Providers** –Amazon-AWS IBM Cloud Azure Digital Ocean Rackspace OpenStack vCloud
- **Hypervisors** – XEN KVM/QEMU ESXi
- **BUILD/CI** – Maven Gradle Jenkins
- **Servers** – Apache Nginx Tomcat
- **Search** – Sphinx Elasticsearch (ELK)
- **Dev-Ops** – Vagrant Chef Ansible Terraform
- **Version Control** – GIT SVN