

Piyush Singhai

CONTACT INFORMATION

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EDUCATION

IIT Guwahati, Assam
M.Tech in Computer Science

2007 – 2009
CGPA: 9.16/10

IES IPS Academy Indore, MP
B.E. in Computer Science

2003 – 2007
Percentage: 78%

Saraswati Shishu Mandir Indore
MP Board- XIIth

June 2003
Percentage: 72.8%

RELEVANT TOOLS

- OS : Linux, Windows
- Programming Languages: Python, C/C++, Java
- Frameworks/Applications: Docker, Redis, Django, DCOS, Apache, FreeSWITCH, Mysql, Aurora RDS, MSSQL, RabbitMQ, Kubernetes
- OpsViz: Grafana, Telegraf, StatsD, Logstash, InfluxDB

WORK EXPERIENCE

ScaleArc, Mumbai, Maharashtra
Senior Member of Technical Staff-II

Dec 2013 – Jan 2018

- *DBaaS: DataBase as a Service Platform:*
 1. Build a Platform using DCOS and Marathon
 2. Created multiple MicroServices for Health Monitoring, Failover, User Management etc.
 3. Run Scalearc Proxy inside the Container
 4. Use OpsViz stack to Show Live monitor Graph and Real time Counters
- Python API and Services
 1. Research on Multiple Replication Technology of Mysql, MSSQL, Oracle and build a Automatic Failover Solution.
 2. Created a Services like Always On, Replication Monitor, Cluster Monitor etc.
 3. Build Django Based API for Services and UI to communicate each other.
 4. Design and Developed the Scalearc Installer using Puppet, Yum and RPM.
 5. Worked on different issues related to Scalability of Services and Inter process communication of services.

Mettl, Gurgaon, Haryana
Senior Software Engineer

June 2013 – Dec 2013

- Worked For online Maths Platform Tutrr which enables students to practice maths
- Worked on Advance Python Features, Maths complex lib Sympy

Knowlarity Communication, Gurgaon, Haryana
Senior Software Engineer

June 2010 – July 2013

- *Knowlarity: Design and Development of Telephony Platform:*
A Telephony Platform that consists of Multiple Services like Incallid, Outcallid and FreeSWITCH to build solutions for virtual call centers, call bridging, conferences, fax and voicemail.
- *Android Application Development:*
Development of several android application for various products like ERCC, RSBY(Government Project), SUPERFAX.
- Designed and implemented several application based on the above infrastructure:
 1. Design and Develop the Product SuperFax.
 2. Worked for different module of SuperReceptionist.
 3. Watermarking, OCR, Bar code detection for fax files.
 4. Worked on Scalability issues like Bulk Call, IVR Cache, Call Packet missing, call hangup etc.

- *Distributed Computing and Machine Diagnostics:*
 - To configure Hadoop distributed file system (HDFS) and Hadoop Database (HBase)
 - The development has been done in a Hadoop platform. Responsibilities include configure hadoop and run Map Reduce Programs.
- *Machine Learning using Artificial Intelligence:*
 - This project requires understanding of Artificial Intelligence, Neural Network and development in Encog (Java Based Framework for Neural Network).
 - A Research project to analyze diagnosis errors thrown by CAN (Control Area Network) Bus, connected to a tractor, by using several network learning algorithms like Feed Forward Neural Network using Backward Propagation and Radial Basis Functional Neural Network.

**MTECH THESIS
AND OTHER
PROJECTS**

Proxy Signature Scheme and its application

Network Security and Cryptography

July 2008 – June 2009

- Proxy Signature allow the original signer to delegate his signing power to a person called proxy signer who can replace the original signer, in case of temporal absence, lack of time or computation power etc. We evaluate the existing scheme and proposed an efficient and secure proxy signature scheme based on Elliptic Curve Cryptography.
- Guide: Dr. Sukumar Nandi (Prof. of CSE Dept., IIT Guwahati)

Tata International Limited (TIL), Dewas, MP

Department: IT

Dec 2006 – July 2007

Intern-IT

- *Product Enquiry System through Web Mail:*
 - Designed a system for reading and answering the mail from INBOX of company that have a provision for automatic searching and replies of the unanswered queries.

**CERTIFICATIONS
AND PAPER
PUBLISH**

- Sun Certified Programmer (SCJP) for Java 2 Platform 1.5
- Published the Paper on Digital Signature Based Proxy Signature Scheme where proposed ECDLP based solution for this scheme.

**ACADEMIC
ACHIEVEMENTS**

- Stood among top 2% in GATE 2007 in CSE.
- Secured 2nd rank on the basis of overall performance in B.E in CSE branch
- Qualified in TON (Programming contest) in Techniche held at IIT-Guwahati.
- Qualified in Google Code Jam (Programming contest), an annual coding event conducted by Google Inc.
- Worked as Teaching Assistant for Data Structures/OOPS/C courses.
- Attended the Information Security Education and Awareness (ISEA) Project held in IIT Guwahati.