

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

- Technologies: Python (Django framework), Freeswitch, Telephony protocols PSTN and SIP, Linux, Postgresql, Android, Postfix, WireShark, Apache, Rabbitmq
- Programming Languages: C/C++, Python, Java

WORK EXPERIENCE

Mettl, Gurgaon, Haryana
Senior Software Engineer

July 2013 – Present

- *Tutrr.com: Practice and Improve Your Math Skills*
 - Currently implementing Maths Identity for solving maths questions.
 - Implemented Multiprocessing in Equation Verification and other modules.

Knowlarity Communication, Gurgaon, Haryana
Senior Platform Engineer

June 2010 – July 2013

- *Core Platform*
 - Development and maintenance of core features of platform:
 - * Design and development of CallCenter
 - * Building prototype or improvising various functionalities related to telephony e.g. conference, forwarding, fax, outgoing, incoming.
 - * Working with freeswitch(written in C) by connecting over ESL(Event Socket Library) and building python APIs for required functionality. Configuring freeswitch, telephony cards and telephony drivers. Debugging related issues too.
 - * Responsible for mass code refactoring and architecture redesigning for proper segregation of platform and products built over it.
 - * Implemented a Load balancer module to prioritize calls and distribute them to message queues. This improved efficiency for bulk calling and scheduling future calls. Catering to live support issues whenever required.
- *Product Development(June 2010-Nov 2011):*
 - Key Role in development of flagship product : Superfax
 - * Architecture redesign and development of Superfax; handled core issues, billing module and migration of customer data.
 - * Designed 'plug and play' back-end cluster for Superfax. Clones of this cluster were sent all across India to make local fax numbers available in various locations.
 - * Worked on all products of the company: Superfax, ERCC, SuperReceptionist (back-end) in the initial design and development phase.
 - * Troubleshooting issues related to db(postgresql), network and other debugging.
 - * Android Application Development for product ERCC, RSBY and SuperFax
 - * Document conversion, Watermarking, OCR, Bar code detection for fax files.

John Deere, Pune, Maharashtra
Department: Architecture and Innovation Group

July 2009 – June 2010

- *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

- *Machine Learning using Artificial Intelligence:*
 - This project requires understanding of Artificial Intelligence, Neural Network and analyze diagnosis errors thrown by CAN (Control Area Network) Bus, connected to a tractor.

MTECH THESIS AND OTHER PROJECTS

Proxy Signature Scheme and its application

Network Security and Cryptography

July 2009 – June 2010

- 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)

Savings Point Mutual Fund (SPMF), Indore, MP

Department: IT

Dec 2006 – July 2007

BE Project

- *Savings Point Online Portfolio:*
 1. We have Implemented different types of Mutual Fund Schemes, like www.valueresearchonline.com while providing facility to the client to see their updated portfolio. We also provide the facility of automatic downloading of NAVs from <http://www.amfindia.com> at 00:00am and converting downloaded HTML format NAV to text format.

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.

Robotic Maze Solver

Mobile Robotics

Jan 2008 – June 2008

- Algorithm to determine the shortest route to exit of the maze and Used wall information stored during the exploration of the maze to determine the quickest route to the exit.
- Guide: Dr. S.B. Nair (Prof. of CSE Dept., IIT Guwahati)

CERTIFICATIONS

- Sun Certified Programmer (SCJP) for Java 2 Platform 1.5
- Sun Certified Web Component Developer (SCWCD) Java 2 Platform
- MCTS (Microsoft Certified Technology Specialist) in .NET Framework 2.0 Application Development Foundation
- MCTS (Microsoft Certified Technology Specialist) in .NET Framework 2.0 Web-Based Client Development

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.