Anupam Srivastava

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Highlights

- 7 years of total experience in Linux/Unix development
- Excellent design skills using design patterns
- Skilled in object-oriented design and development via different languages
- Well versed in data structures and algorithms
- Experienced in AGIL development process

Computer Skills

Languages	C++, C, Perl, Core Java, Bash, Fortran
Operating Systems	Linux, AIX, Windows
Source Control	Git, Perforce, ClearCase, cvs, subversion (svn)
Development tools	Eclipse, Visual Studio, gdb, cygwin, Netbeans
Productivity Tools	Jira, Rational, Rally

Education

Master of Science (Air Quality Control)	University of Stuttgart, Germany, 2008
Bachelor of Technology (Chemical Engineering)	Indian Institute of Technology, Kanpur, India, 2006

Awards

Fluid Phase Equilibria, Uni-Stuttgart	1st Prize, part of the development team of simulation of software
Global LabRats, PayPal	2nd Prize, for innovation in unit testing
Spot Award, PayPal	For innovation and leading the local desktop development effort

Professional Experience

Accelrys/Biovia via Indecomm Global Services   February 2013 – onwards, Bangalore, India
Lead Engineer

Worked for Accelrys product 'Insight of Excel' v 2.0 in a team of 5.
- Involved in design of the product as a technical lead.
- Reverse engineered older format of all Accelrys products and incorporated them into our product. (C++)
- Involved in frontend design (C#).
- Wrote excel add-in to interact with backend DLL (C++, C#).

April 2011 – February 2013, Chennai, India

PayPal Inc. via Ness Technologies
Senior Software Engineer

Worked in Applications Services Group which manages backend money movement code.
- Won Global 2nd prize in LabRats, Spring 2012 for personal project called UTTest (Perl). Source URL: https://github.com/anupamsr/ut-test
- Was involved in rewriting parts of code for supporting card funded payments in P2.0 (C++).
- Was involved in performance improvement of P2.0 orchestration engine (C++, Design).
- Drove initiation of virtual desktop use for development. The project went for 6 months parallel with the job after which we realized that code breakup was essential for further development (Shell scripting).

India Software Labs, IBM Private Limited   June 2010 – April 2011, Bangalore, India
Systems Software Developer

Working under ATK (Automation Tool Kit) team of 4, responsible for deployment of OS images (AIX and Linux) to clusters of different types depending on customer requirement.
- Individually developed logging library in for use before installation of all perl modules (Perl).
- Individually developed a cross-platform script to find all the hardware connections between different hardware components. A library was developed to execute different independent parallel commands with varying arguments and store their output and return code respectively (Perl).

- Worked in a team of 3 to develop a validation framework using XML for use in different departments in IBM. Only commands should succeed and/or what should be done if such command fails. The validation code takes care of all the dependencies of this command and performs read-only tests (Perl, XML).
- Developed code for automating validation of different components of ATK (Perl, Ksh).

Process Engineering, University of Stuttgart   2006 – 2010, Stuttgart, Germany
On contract (co-worker)

Developed parallel (grid) simulation of a heat exchanger in C++ to model the thermodynamics in heavy vehicles under high temperature ranges (750 ºC to 900 ºC). The object-oriented library developed in the project was re-used in other related projects at the institute.
- Developed an object-oriented interface for modeling the problem and submitting the computation as tasks objects in a cluster (Perl).
- Improved and developed a faster user defined routine for custom material to be used in the simulation running over multiple processors (C++, OpenMP).
- Implemented a charting tool for fast processing of huge data generated by the simulation tools (Core Java). Source URL: http://sourceforge.net/projects/ms2chart

Worked in a team of 6 engineers on various projects related to thermal physics research; contributed to a large-scale application for evaluating molecular models at different state points (Link Cell Algorithm). The work was subsequently published in a reputed international journal.
- Developed scripts to remotely monitor output of jobs running on a supercomputer in Karlsruhe, Germany, using regular interval polls to different jobs on the supercomputer. An automatic adjustment of input data was made in case of a job failure (Bash).
- Developed Perl scripts to adjust input for load balancing in a computational grid. The script scanned the nodes in the network and gathered performance metrics before distributing jobs on the compute nodes in the network (Perl).
- Developed scripts for test-automation and regression (Perl, Bash).

Independent Projects

UTTest, Fault injection testing for unit tests (Perl)   2012, PayPal Inc., Chennai, India
Developed fault injection framework (open source) to test the efficiency of a unit test. You specify the test case and the list of files it is supposed to cover in a YAML file, and the ut_test tool will sequentially introduce bugs and check if the test case is catching or not. The kind of bugs to be introduced is fully customizable, and can be used to check if already fixed bugs have been accidently reintroduced or not.

FreeCell (C++)   2010, University of Stuttgart, Germany
Developed a console FreeCell application using *curses* library (e.g. *PDCurses* or *NCurses* for character movement on the console); mapped card-symbols to Unicode and ASCII characters addressing all portability concerns. Performed user-experiments to evaluate usability/game-play of the single key input interface for commands in the application (e.g. card movements).

Cross platform build and support (C++)   2005, Indian Institute of Technology, Kanpur
Ported a large code-base developed at the chemical engineering department from Win32 platform to Linux environment; developed a helper shell script to run the application over multiple computers with a shared mounted directory (*NFS*).

Publications

1. T. Schnabel, **A. Srivastava**, J. Vrabec, H. Hasse, Hydrogen Bonding of Methanol in Supercritical CO_2: Comparison between 1H-NMR Spectroscopic Data and Molecular Simulation Results, *The Journal of Physical Chemistry B* (2007) 111, 9871-9878.
2. **A. Srivastava**, A. K. Verma, Identification of Integrating Processes with Deadtime and Inverse Response, *Industrial & Engineering Chemistry Research* (2007) 46, 8270-8272.

Personal Details

Passport No.	F6745762 (B1 Visa holder)
Date of birth	November 16, 1983
Spoken languages	English (Near native)
	Hindi (Mother tongue)
	German (Beginner)