

# Akash Srivastava

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EDUCATION	<b>B.Tech in Information Technology</b> - 8.48/10 (7 Semesters) 2017* National Institute of Technology Patna, Bihar, India
	<b>Intermediate</b> - M.P.V.M, Allahabad (CBSE) - 86% 2012 <b>Matriculation</b> - A.F.S, Allahabad (CBSE) - 83.6% 2010
INDUSTRIAL EXPERIENCE	<b>SDE Intern, Amazon Development Center India</b> Jan, 2017 - Present – Working with VAT International Services Team as a Software Development Engineer(SDE) Intern to develop next generation Seller Central software for European marketplaces.
RESEARCH EXPERIENCE	For details, please visit: <a href="https://akash1684.github.io/projects">https://akash1684.github.io/projects</a>  <b>Research Intern, GPU Centre of Excellence, IIT Bombay</b> June, 2016 - Aug, 2016 – Worked towards development of a deadlock-free algorithm to synchronize threads for GPGPU applications on CUDA framework. – Proposed algorithm is inspired by Banker's algorithm for resource allocation in CPU and is being tested on Delaunay Mesh Refinement Benchmark.  <b>Summer Intern in Distributed Systems Group, IIT Bombay</b> <i>Mentored by Prof. R.K Shyamasundar (IIT Bombay, India)</i> May, 2016 - June, 2016 – Developed a framework for May-Happen-In-Parallel Analysis for Single Program Multiple Data (SPMD) Model using Async and Finish constructs. – Framework takes X10 Program and two Statements as input and return Condition Vectors Set (CS) that defines whether the statements can execute in parallel or not.  <b>Summer Intern, MNIT Allahabad</b> <i>Mentored by Prof. K.K Mishra (MNIT Allahabad, India)</i> May, 2015 - June, 2015 – In this project comparative study of 5 well known variants of Particle Swarm Optimizers is done using CEC13 benchmark function. – Watermarking scheme for RGB image based on singular value decomposition (SVD) in DWT (Discrete wavelet transformation) is further optimized using proposed PSO variants. – Result: 22% increase in fitness of the watermarking scheme compared to the conventional scheme.
PUBLICATIONS	• <b>Akash Srivastava.</b> "Performance Comparison of Various Particle Swarm Optimizers in DWT-SVD watermarking for RGB Images" in Proceedings of the IEEE 6th International Conference on Computer and Communication Technology (ICCCT 2015)[ <a href="#">PDF</a> ].
ACHIEVEMENTS	• Ranked <b>3rd</b> in department of strength of 88 students, graduating batch of 2017. • Awarded the prestigious <b>Research Fellowship</b> for summer 2016 under Indian National Academy of Engineering (INAE) Mentorship Program. • Recipient of <b>undergraduate research grant</b> by Technical Education Quality Improvement (TEQIP) Cell, NIT Patna. • Secured <b>98.65 percentile</b> at All India level in JEE Mains 2013 among over 1,400,000 students. • Recipient of FITJEE Talent Reward scholarship 2012, an all India competition conducted by FITJEE (private firm).
COURSE AND SIDE PROJECTS	For codes and details of projects, please visit: <a href="https://github.com/Akash1684">https://github.com/Akash1684</a>  • <b>AKA-shell</b> : A naive implementation of LINUX shell in C. It demonstrates how a shell works i.e. read, parse, fork, exec and wait. Built-in commands includes cd, help, exit, hist. Project was done as part of Operating System course, under Prof. J.P. Singh, NIT Patna.

- **Timex- A chrome extension** : It keeps track of surfing time, when extension is accessed time spent along with random quote is displayed. Project was done as part of Web Technology course, under Prof. Kumar Abhishek, NIT Patna.
- **Tweete (Twitter Handler)** : Tweete is a desktop application designed in JAVA that provides interface to interact with Twitter account using Twitter4j API. Presently, Tweete have three features: Update Status, Send Direct Messages and Retrieve Previous Tweets.
- **pyBuzz** : A python script that sends weather forecast summary along with word of the day to mobile phone on system startup. Dependencies includes BeautifulSoup, Twilio, Urllib and Forecastio.
- **Shut-it-Down** : A desktop application that automates the scheduling of system shutdown (Windows Users). Designed using JAVA Swing and implemented using System Calls.
- **File Encryption and Decryption using cipher class** : A console based Encryption and Decryption application developed in JAVA. This project was done during Summer Training at Hewlett-Packard (HP) nodal center, India, 2014.

#### TECHNICAL SKILLS

- **Languages** : C , C++ , JAVA , Python, X10
- **Back-ends** : MySQL , Oracle
- **Platforms** : Linux , Windows
- **Web Technologies** : HTML , CSS , JavaScript , JQuery
- **Tools / Frameworks** : CUDA , MATLAB , Netbeans , GitHub , L<sup>A</sup>T<sub>E</sub>X

#### COURSES UNDERTAKEN

Introduction to Computing, Object Oriented Methodology, Data Structures and Algorithms, Design & Analysis of Algorithms, Operating System, Database Management Systems, Web Technology, Computer Networks, Computer Organization & Architecture, Data Mining\*.

#### WORKSHOP AND ADDITIONAL COURSEWORK

- **L<sup>A</sup>T<sub>E</sub>X Workshop** : A workshop on the basic use of L<sup>A</sup>T<sub>E</sub>X tool and its application in various fields of science and research, conducted by IIT Bombay, India.
- **Linux OS and Shell scripting** : Workshop focuses on the introduction of Linux and its development, conducted by RedHat Corporation at NIT Patna.
- **Design and Analysis of Algorithms**: An online course provided by Dept. of Computer Science, Chennai Mathematical Institute (CMI).

#### OTHER ACTIVITY AND RESPONSIBILITY

- Coordinated and conducted various coding event for students, at annual college technical fest Corona, conducted by NIT Patna.
- Volunteer at Sankalp (Oct 2013 - Feb 2014): The members of this group teach students of the financially weaker sections of the society.

#### MORE

Please visit <https://akash1684.github.io>