

Darshan Washimkar

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PROFESSIONAL PROFILE

Highly motivated computer science graduate student with a strong knowledge of **Computer Networking, Big Data Analysis, Machine Learning** and **Bioinformatics**. Accomplished a couple of **research projects** and also have more than **30 months experience** in the software industry. Actively seeking a **challenging internship** opportunity.

EDUCATION

Master of Science, Computer Science Dec 2015 (Expected)
Colorado State University, Fort Collins, CO, USA **GPA: 3.73/4.00**

Courses	Advanced Computer Networking (CS557)	Machine Learning (CS545)	Big Data (CS581)
	Bioinformatics Algorithms (CS548)	Fault Tolerant Computing (CS530)	

Bachelor of Technology, Information Technology May 2011
Shri Guru Gobind Singhji Institute of Engg and Tech, Nanded, MH, India **GPA: 7.8/10**

Courses	Distributed Systems	TCP/IP	Operating Systems
	Mobile & Wireless Communication	Data structures	Computer Architecture

TECHNICAL EXPERTISE (Levels: P-Proficient, I-Intermediate, N-Novice)

Languages:	C [P]	C++ [P]	Python [I]	Java [I]	
Data Analytics:	Hadoop [N]	MapReduce [N]	SQL [I]		
Web Technologies:	HTML5 [P]	JavaScript [P]	jQuery [P]	KML [I]	PHP [I]
Databases/Tools:	Oracle [I]	MySQL [I]	Network Simulator [I]		Eclipse [P]
Cloud Services:	Amazon Web Services (AWS) [N]				

WORK EXPERIENCE

1) Graduate Teaching Assistant, Colorado State University Jan 2015 – Present

- Working as a GTA for (CS557) **Advanced Computer Networking** and (CS160) **Foundations in Programming**
- Conduct two recitations every week and teach ~30 students
- Also, responsible for grading, creating assignments, solving assignment related queries and serving as a lab manager

2) Student Scientist, Colorado State University Jan 2014 – Jan 2015

- Worked on BGP Monitoring System (BGPmon) and delivered a translator module which is capable of converting Multi-Threaded Routing Toolkit (MRT) files to XML format supported by **BGPmon**
- Developed visualization tools using **KML** to simulate DDoS attack events like NTP reflection attack
- Fixed ~25 existing bugs, including improvements in BGPmon and built a project website. Primarily worked with **C, C++**

3) Programmer Analyst, Cognizant Technology Solution June 2011 – Sept 2013

- Programmed websites, mobile applications and e-mailers using **JavaScript, jQuery, HTML 5, XML, JAVA, ASP.net**
- Gathered and analyzed requirements for the world's top pharmaceutical firms
- Maintained websites, including bug fixing and improving website loading time
- Awards:**
 - > Awarded for innovative "honey bee" gaming application. It was a POC, demonstrating our capabilities [team of 2]
 - > Member of 6 person team which was awarded "Low Cost Solutions Project Of The Year" for highest efficiency

ACADEMIC PROJECTS

- 1) Optimal Selection of Enzyme Triad for Index Alignment of Contigs to Optical Maps Using MapReduce** [Team size: 2] **Oct 2014 - Present**
- Proposed a new method to find best restriction enzyme triad from ~11 million combinations using **MapReduce**
 - Implemented the algorithm in **hadoop** using **python** to distribute the task of finding shared sub strings in suffix tree
 - Updated Dell Zhang's **generalize suffix tree** implementation to support Unicode characters of large range
- 2) Forecast Use Of A City Bikeshare System** [Team size: 1] **Nov 2014 – Dec 2014**
- Implemented linear (LLS) and non-linear models(Neural Networks) to predict the demand for bike sharing system
 - Code implementation was in **python** and the results were submitted to kaggle for competition
 - Showed that non-linear model performs much better for this problem
- 3) Genome Assembler** [Team size: 1] **Aug 2014 – Dec 2014**
- Implemented a sparse de Bruijn graph for genome assembly from scratch in **C++**
 - Performed in depth theoretical investigations into various **succinct data structures** for de Bruijn graph optimization
- 4) A P2P File Sharing Network** [Team size: 1] **Feb 2014 – Mar 2014**
- Project involved development of peer to peer file sharing network that uses protocol resembling BitTorrent
 - Implementation of **socket programming, fork, event loops** was in **C** language
- 5) A File Sharing Protocol Over Named Data Networks (NDN)** [Team size: 1] **Mar 2014 – Apr 2014**
- Project was implemented using **CCNx** library from ccnx.org in **C**
 - Compared performance of the protocol in IP vs NDN configuration and found that NDN gave much better performance
- 6) Low Cost Supercomputer with Cluster Computing** [Team size: 3] **Aug 2010 - Apr 2011**
- Built a simple-to-manage and easy to deploy HPC cluster from outdated PCs of college laboratory
 - It was used to execute compute intensive software applications in an academic setting
 - Used HPLinpack to evaluate performance
- 7) Java Protocol Analyzer** [Team size: 1] **Mar 2010 - May 2010**
- An application for capturing packets in the network to assist network monitoring
 - Sorting and graphical representation of captured packets was miscellaneous functionalities of this application

CERTIFICATIONS

- Exam 70-480: Programming in HTML5 with JavaScript and CSS3 [Microsoft]

OTHER ACTIVITIES

- As an undergraduate, conducted a day long workshop on 'Linux Administrator And Advance Shell Scripting' with 60+ participants
- I was a member of Outreach and Team Everest, two groups in Cognizant that work for the cause of child literacy in rural areas.
- Organized cultural events at college level and also at 'PRAGYAA', national level technical festival in SGGS
- I was an active member of college sports club and key member of the college cricket team