
EDUCATION

Currently enrolled in M.S. in Computer Sciences, (Graduating in Dec 2017)

University of Wisconsin-Madison

Relevant Courses: Advanced Databases (CS 764), Big Data Systems (CS 838), Machine Learning (CS760), Data Science (CS 838), Computer Vision (CS 766), Artificial Intelligence (CS 540)

Current GPA: 4.0 / 4.0

Bachelor of Technology in Computer Science & Engineering, May 2014

Indraprastha Institute of Information Technology (IIIT) Delhi, India

Overall GPA: 8.97 / 10.00 Major GPA: 9.17 / 10.0

EXPERIENCE

Facebook, Menlo Park, CA, USA

Software Engineering Intern, May 2017 - August 2017

- Extended current framework at Facebook to allow generation of code to create web-hooks by specifying details of the web-hook in a declarative manner.

Adobe Systems, New Delhi, India

Senior Member of Technical Staff, June 2014 - August 2016

- Web Developer for Adobe Story (Screenplay writing SaaS) and Adobe Transmedia (Social Planning companion app to Adobe Story) team: Added numerous features to a real-time collaborative editor(etherpad-lite) like comments and scheduler to help schedule scenes written in Story.
- Android Developer for Adobe Premiere Clip (Video Editing App): Optimized thumbnail extraction in Gallery view to allow users to edit videos and images.

Microsoft Research Labs, New Delhi, India

Research Intern, May 2013 - July 2013

- Developed a smart-shelf application that detects user interactions with a shelf using cameras mounted on top of it.
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PUBLICATIONS

- Kiehn, Astrid, and Deepanker Aggarwal. "A Study of Mutable Checkpointing and Related Algorithms." *Science of Computer Programming* (2017).
 - Aggarwal, D. and Kiehn, A., 2015, April. Analyzing mutable checkpointing via invariants. In *International Conference on Fundamentals of Software Engineering* (pp. 176-190). Springer International Publishing.
 - Rajalakshmi Nandakumar, Swati Rallapalli, Krishna Chintalapudi, Venkata N. Padmanabhan, Lili Qiu, Aishwarya Ganesan, Saikat Guha, Deepanker Aggarwal, and Aakash Goenka, Physical Analytics: A New Frontier for (Indoor) Location Research, no. MSR-TR-2013-107, October 2013
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PROJECTS

Correlate Yelp rating of restaurant with various factors

With Prof. AnHai Doan as part of CS838, University of Wisconsin - Madison

- Collected different kinds of data related to restaurants in New York City. Using Data Science techniques, we found the correlation of Yelp rating of restaurants with various factors like demographics and city restaurant inspection results.

Neural Style Transfer

With Prof. Mohit Gupta as part of CS766, University of Wisconsin - Madison

- Improved vanilla neural style transfer by tweaking the layers used and added features to allow color preservation and different styling of different objects in the image. This was achieved by segmenting objects in the image and then applying different styles on different objects.

Implement a Convolutional Neural Network for Classification

With Prof. David Page as part of CS760, University of Wisconsin – Madison

- Implemented basic layers of CNN in Java and classified CIFAR-10, MNIST datasets.

Comparison of Main Memory Sort Merge Join algorithms for Multi-Core CPUs

With Prof. Jignesh Patel as part of CS764, University of Wisconsin – Madison

- Compared and evaluated efficient sort merge join algorithms in main memory environment for modern multi-core, multi-socket processors, primarily Basic-Massively Parallel Sort Merge, Partitioned-Massively Parallel Sort Merge and the sort merge join algorithm using bitonic merge networks in parallel merge sort.

Analysing mutable checkpointing via invariants

Prof. Astrid Kiehn, IIT Mandi

- Advocated the use of invariants for correctness proofs, analysis and comparison of distributed algorithms by providing a direct proof of the well-known co-ordinated snapshot algorithm of Mutable Checkpointing (by Cao-Singhal) via an invariant.

SKILLS

Core Languages

Java, C

Web

Hack, Javascript, AngularJS, Beginner in HTML

Others

Beginner in Android, Python, Spark, GraphX, Hadoop, Keras, Sklearn

AWARDS AND ACHIEVEMENTS

- Nominated for the best paper award at FSEN, 2015
 - Special Contribution Award (2016) for leading development of a whole component in Adobe Story
 - Team Award (2015) for leading development for prototype of Adobe Transmedia.
 - Rank 25, ICPC Regionals Kharagpur, 2013
 - Rank 4(India) and Rank 19(World) in Codechef Long Contest, Feb 2014
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POSITIONS OF RESPONSIBILITY

- Teaching Assistant - Introduction to Algorithms (CS 577) at University of Wisconsin-Madison in Fall 2016.
- Co-founded FooBar, programming society of IIT-Delhi. I took algorithm classes, organized contests for the club.
- Organized placement sessions for Batch of 2015 where I helped students refresh the key concepts of computer science.
- Organized refresher module on C for Batch of 2017.