Ashish Dandekar

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EDUCATION

PhD in Computer Science
School of Computing, NUS, Singapore — Since August 2014 - May 2019
GPA: 4.3/5

Bachelor of Technology in Computer Engineering
College of Engineering, Pune, Maharashtra, India — July 2010 -May 2014
GPA: 9.69/10
Gold Medal for standing first in a batch of 93 students

EXPERIENCE

Département Informatique
École Normale Supérieure, Paris — Since July 2019
Post-doctorate

School of Computing
National University of Singapore, Singapore — Jul 2018 - Jun 2019
Full-time Teaching Assistant

School of Computing
National University of Singapore, Singapore — Jan 2015 - Jun 2018
Part-time Teaching Assistant

Institute of Infocomm Research
Agency for Science, Technology and Research, Singapore — Oct 2015 - Feb 2016
Research Attachment, Data Analytics Dept

- Worked on data mining techniques for Urban Data
- Finding communities of daily commuters in the Public Transportation Data

LTCI
Télécom ParisTech, Paris, France — Aug 2017 - Sep 2017
Visiting Researcher

PUBLICATIONS

- Dandekar, A., Bressan, S., Abdessalem, T., Wu, H., & Ng, W. S. "Detecting Communities of Commuters: Graph Based Techniques Versus Generative Models". In *(CoopIS-2016)*
- Dandekar, A., Bressan, S., Abdessalem, T., Wu, H., & Ng, W. S. "Trajectory simulation in communities of commuters". In *(ICACSIS-2016)*
- Dandekar, A., Zen, R. A. M., Bressan, S. "Generating Fake but Realistic Headlines using Deep Neural Networks". In *(DEXA-2017)*
- Yunus, F., Dandekar, A., Bressan, S. "Data Driven Generation of Synthetic Data with Support Vector Data Description". In *(DEXA-2017)*
- Dandekar, A., Zen, R. A. M., Bressan, S. "Comparative Evaluation of Synthetic Data Generation Methods". In Deep Learning Security Workshop 2017, Singapore *(Poster)*
- Dandekar, A., Zen, R. A. M., Bressan, S. "A Comparative Study of Synthetic Dataset Generation Techniques". In *(DEXA-2018)*
- Dandekar, A., Basu, D., Bressan, S. "Differential Privacy for Regularised Linear Regression". In *(DEXA-2018)*
- Dandekar, A., Basu, D., Kister, T., et al. "Privacy as a Service: Publshing data and models". In *(DASFAA-2019)*
- Dandekar, A., Basu, D., Bressan, S. "Differential Privacy at Risk". In Journal of Privacy and Confidentiality, 2019 *(Under review)*

PROJECTS

National University of Singapore, Singapore

Evolution of Events over Time Aug - Dec 2015

- Part of module Uncertainty Modeling in AI
- Conducted a survey of topic models like Latent Dirichlet Allocation (LDA) and its variants
- Explored temporal modeling techniques in probablistic graphical models
- Performed experiments on the Twitter datasets(Indian Election and Wimbeldon 2015) studied evolution of sub-events over time

Book-Taste Clustering in goodreads communities Jan - April 2015

- Part of module on Social and Digital Media Analytics
- Scraped the data using APIs provided by *goodreads* and hence used it to form social networks
- Conducted a survey of various community detection algorithms and performed an empirical study
- Explored and quantified the *homophily* in the network which was further used it to reason the social ties in the *goodreads* communities

Batched Matrix Inversion on GPUs Jan - April 2015

- Part of module Advanced Topics in Data Mining
- Unlike libraries, with focus on large sparse matrices, we explored batched matrix operations with many small dense matrices on GPU
- Implemented Gauss-Jordan Inversion by writing low-level *kernels* to exploit parallelism in GPUs.
- Performed benchmarking against the state-of-the-art GPU libraries and CPU baselines

College of Engineering, Pune, Maharashtra, India

Accelerating Query Dependent PageRank (FYP)

- Query dependent variant of PageRank being computationally intensive is not feasible to run on CPUs. This is accelerated by exploiting embarrassingly massive parallelism in GPU.

- Used Python Scrapy framework for web scraping and NoSQL datastores like MongoDB and Redis as the backing store
- Used libraries like CUBLAS, CuThrust to perform vector and linear algebraic computation on GPU.

SKILLS

Programming Languages: Python, C, C++, Java, Shell Scripting, R, CUDA(C extension for Nvidia GPUs), HTML, Javascript

Libraries: Scipy, Numpy, igraph, NetworkX, matplotlib, scikit-learn, CUBLAS

Softwares and Datastores: LaTeX, git, Apache, Redis, MongoDB, Gephi, Google Maps APIs

Operating Systems: Linux (Ubuntu 14.04)

Languages: English, Marathi, Hindi

ACHIEVEMENTS

- Honored as a National Scholar in National Talent Search Scholarship (NTSE)
- Completed three levels of Kathak (Indian Classical Dance Form) and learning Sitar (Indian Stringed Instrument)

SPECIAL INTERESTS

Teaching, Indian Classical Music, Cooking, Networking, Reading, Traveling, Philosophy