Abhishek Bhatia

Last Updated on 4th March 2019

abhishekb.herokuapp.com | a.bhatia@columbia.edu | 917-361-4869 | Mountain View, CA

EDUCATION

Columbia University
Masters in Computer Science (Machine Learning)
May 2018 | NY, USA
GPA: 3.8/4.0

USICT, GGSIPU
BS in Information Technology
May 2015 | Delhi, India
First class with distinction

GRADUATE COURSEWORK

AI & ML
Machine Learning
Deep Learning
Advanced Machine Learning
Natural Language Processing
Bayesian Machine Learning
Reinforcement Learning

Theory & Statistics
Analysis of Algorithms
Statistical Inference

Systems
Operating Systems
Cloud Computing & Big data

TECHNICAL SKILLS

Programming
Python • GoLang • Java • C++ • C
R • Matlab • NetLogo

Libraries
Django • Flask • Twisted • TensorFlow
Keras • PyTorch • Caffe • LaTeX

Cloud platforms
Amazon Web Services • Google Cloud

LINKS

Github: abhigenie92
LinkedIn: abhishekbhatia92

TEACHING

Columbia University
Graduate Teaching Assistant
- Machine learning
- Neural Networks & Deep Learning

TALKS

Butail, S., **Bhatia, A.**, Mohammadi, E. Speed Modulated Social Influence in Evacuating Pedestrian Crowds. SIAM Conference on Dynamical Systems, 2017. Link

WORK EXPERIENCE

Omnify.ai | Software Engineer
Oct 2018 - Present | Mountain View, CA, USA
- Worked on building a scalable system to identify similar WiFi tracking devices and fill missing data using probabilistic PCA.
- Re-factored and optimized both back-end and WiFi device code which improved code quality and performance respectively.

Columbia University Blei Lab | Research Intern, Jaan Altosaar
May 2017 - March 2018 | New York, NY, USA
Developed a generic, efficient method to make reinforcement learning algorithms more robust by constraining gradient updates of policy parameters

IIT, Delhi | Project Assistant, Prof. Jayadeva
Jan 2016 - Nov 2016 | Delhi, India
Developed low complexity classification framework for EEG signals which achieved lower error rates and learnt simpler representations compared to previous approaches such as SVMs.

IIIT, Delhi | Research Assistant, Dr. Sachit Butail
Jun 2015 - Dec 2015 | Delhi, India
Built a kinematic model to provide new insights into how certain psychologies are more prone to specific triggers in crowd disasters.

RESEARCH PROJECTS

Group Rating Decomposition as a Distribution over Users
Jan 2018 – May 2018 | Prof. Tony Jebara, Columbia University
Formalized and put forth a novel three step process for decomposing group ratings into a composition of user archetypes. Report-Link

De(warp/nois)ing Images with Conditional GANs
Jan 2017 – May 2017 | Prof. Peter Belhumeur, Columbia University
Developed a conditional GAN approach for dewarping/denoising images. Further, understood why the neural network blurs out high spatial frequency components. Report-Link, Presentation-Link

VideoStyle Transfer System
Jan 2017 – May 2017 | Dr. Sambit Sahu, Columbia University
The video stylizing system was designed for users to convert their video to a special styles. The system was made efficient and scalable using EC2, SQS, SNS, and S3. Report-Link, Presentation-Link

SELECTED PUBLICATIONS

- **Bhatia, A.**, Altosaar J. and Gu, S. Proximity-constrained reinforcement learning. NIPS 2017 Workshop, Advances in Approximate Bayesian Inference. Link
- Sharma, I., Chourasia, B., **Bhatia, A.** and Goyal, R., 2016. On the role of evangelism in consensus formation: a simulation approach. Complex Adaptive Systems Modeling. Link
- **Bhatia A**, Singh A, Goyal R. A Hybrid Autonomic Computing-Based Approach to Distributed Constraint Satisfaction Problems. Computers. 2015. Link
- Singh A, Thapar S, **Bhatia A**, Singh S, Goyal R. Disk Scheduling using a Customized Discrete Firefly Algorithm. Cogent Eng. 2015. Link
- **Bhatia A**, Johari R. Genetically optimized ACO inspired PSO algorithm for DTNs. In: $3rd$ International Conference Reliability, Infocom Technologies and Optimization. 2014. Link