

Dhruv Mullick

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EDUCATION

DELHI UNIVERSITY

B.E. (HONS) COMPUTER
ENGINEERING

Netaji Subhas Institute Of
Technology (NSIT)
Grad. June 2017 | New Delhi
CGPA: 8.93 / 10.0
Department Rank 7/180
4 Years Merit Scholarship

DPS, VASANT KUNJ

Grad. May 2013 | Delhi, India
Class XII C.B.S.E Board Exam
Institute Rank 1 97.4%

LINKS

Github: [dhruvmullick](#)
LinkedIn: [dhruvmullick](#)
GoogleScholar: [dhruvm1.co](#)

CERTIFICATIONS

MATH FOR MACHINE
LEARNING SPECIALISATION
Coursera (2020)

STRUCTURING MACHINE
LEARNING PROJECTS
Coursera (2020)

IMPROVING DEEP NEURAL
NETWORKS
Coursera (2020)

NEURAL NETWORKS AND
DEEP LEARNING
Coursera (2020)

AWS TECHNICAL
PROFESSIONALS
AWS (2017)

COURSEWORK

Operating Systems,
Compilers, Artificial
Intelligence, Computer
Architecture, Programming,
Software Engineering,
Networking, Databases

SKILLS

• Java • AWS • C • C++
• Ruby • React Native
• Objective C (iOS)
e • Matlab • Python

EXPERIENCE

AMAZON | SOFTWARE DEVELOPMENT ENGINEER - 2

July 2017 - Present | Bangalore, India

- **GDPR Data Compliance** Dev lead for compliance system for communication preferences. Developed scalable architecture using SQS & S3. Guided 3 SDEs for sub-components and wrote modular code using design patterns.
- **Testing Framework** Architected and implemented a framework for writing integration tests for customer emails. Wrote extensible and modular code using design patterns and annotation based programming. Used AWS S3 for storage.
- **Push Preferences Migration** Migrated 2 preference services to new upstream service. Worked with legacy systems (Android, iPhone) & ensured 0 customer impact.
- Worked on **Customer Communication Preferences System** for emails and push. Gained experience with real-time systems using AWS Lambdas, Redshift, Firehose & DynamoDB.

AMAZON | SOFTWARE DEVELOPMENT ENGINEER INTERN

June 2016 – July 2016 | Bangalore, India

Action Buttons Created provision in Amazon Android Shopping App for adding items to cart or wish-list from push notifications without opening the app.

RESEARCH

IIIT - DELHI | RESEARCH ASSOCIATE

Sept 2016 – Feb 2017 | Delhi, India

Under **Dr. Subramanyam**'s supervision, performed research on visual object tracking. Worked on scale adaptation of an object's appearance while in motion by using an Online SVM for maintaining an adaptive object appearance model. Paper presented at the 24th conference of IEEE ICIP-2017. [3]

DELHI UNIVERSITY | UNDERGRADUATE RESEARCHER

August 2016 – October 2016 | Delhi, India

Under **Dr. Nagpal**'s guidance, performed research on application of Gravitational Search Algorithm in Recommendation Systems - estimating feature weights in Collaborative Filtering. Saw 5% improvement in F1-Score. Paper presented at the 8th ICSI-2017 [1] conference.

PROJECTS

BIG DATA CLUSTERING | BACHELOR'S THESIS PROJECT

November 2016 – March 2016 | Delhi, India

Under **Dr. Aggarwal**'s supervision, performed research on Clustering of Big Data, with the goal to cluster large data without using distributed computing resources. Used Fuzzy Clustering augmented with Swarm Intelligence to prevent local extremes. Saw 10% improvement in F1-Score, Purity, ARI. Paper presented at the 10th conference of EUSFLAT-2017. [2]

PUBLICATIONS

- [1] V. Choudhary, D. Mullick, and S. Nagpal. Gravitational search algorithm in recommendation systems. In Y. Tan, H. Takagi, Y. Shi, and B. Niu, editors, *Advances in Swarm Intelligence*, pages 597–607, Cham, 2017. Springer International Publishing.
- [2] D. Mullick, A. Garg, A. Bajaj, A. Garg, and S. Aggarwal. Ant colony based fuzzy c-means clustering for very large data. In J. Kacprzyk, E. Szmids, S. Zadrozny, K. T. Atanassov, and M. Krawczak, editors, *Advances in Fuzzy Logic and Technology 2017*, pages 578–591, Cham, 2018. Springer International Publishing.
- [3] D. Mullick, A. V. Subramanyam, and S. Emmanuel. Online svm and backward model validation based visual tracking. In *2017 IEEE International Conference on Image Processing (ICIP)*, pages 4327–4331, Sep. 2017.