PRIYAL AGGARWAL

EDUCATION

Columbia University — New York, NY
Master of Science in Computer Science (Machine Learning Track) | GPA 3.92 — *Dec 2020 (expected)*
Coursework : Machine Learning, Applied Deep Learning, Computer Vision, Artificial Intelligence
Course Assistant : Visual Interfaces to Computers under Prof. John Kender, Spring 2020

Delhi Technological University — Delhi, India
Bachelor of Technology in Computer Science Engineering | GPA 9.34/10 — *May 2018*

EXPERIENCE

Amazon Robotics — Boston, MA
Software Engineering Intern — *Jun 2020 - Aug 2020*

- Developing software for Human in the loop Machine Learning system for inventory control in Amazon Robotics warehouses.
- Running statistical significance tests to measure the difference between various human machine interfaces.

Microsoft — Hyderabad, India
Software Engineer — *Jun 2018 - Jul 2019*

- Automated the process of addition of cloud-based storage to be consumed by the data plane of Azure Backup for customer data and metadata storage, resulting in a saving of 34% developer time.
- Designed and implemented the automation of credential regeneration process for ∼10000 storage units, with particular focus on security. Backed it with Kusto based logging and alerting system for maintenance purposes.
- Implemented Soft-Delete feature in a micro-service to allow recovery of deleted data within a timeframe.

Microsoft — Hyderabad, India
Software Engineering Intern — *Jun 2017 - Jul 2017*

- Developed Powershell cmdlet for one-click deployment of microservices in Azure Backup reducing human effort by 50%.

Women Who Code Delhi — Delhi, India
Director — *Dec 2017 - Aug 2019*

- Led a team of 10 females to support more women in technology by organizing large scale events such as hackathons.
- Awarded the coveted Google Women Techmaker Scholarship (2017) for contributions towards inclusion in tech.

RESEARCH PROJECTS

Abstractive Summarization using Variational Autoencoders — 2020

- Present summarization techniques fail for long documents and hallucinate facts. Exploring methods to generate a faithful abstractive summary by editing facts extracted from the document using variational inference.

Alerting Misbehaviour for Autonomous Driving Systems — 2020

- Investigating methods to predict unsupported scenarios in autonomous driving systems trained using imitation learning. Using unsupervised models like autoencoders to enable online healing of such systems to prevent accidents.

Medical Image Diagnosis — 2020

- Devised a MobileNetV2 CNN based classifier to diagnose COVID-19, pneumonia, and viral fever cases from Chest X-Rays. Used transfer learning, data augmentation and upsampling techniques in Tensorflow to achieve 80% weighted accuracy.
- Created a CNN based classifier to detect tumor from *gigapixel* images from the CAMELYON 16 challenge.

Classification of Indian Monuments into Architectural Styles — 2017

- Compared Radon Barcodes and CNN based models for classification of Indian Monuments into Architectural Styles. Published in National Conf. on Computer Vision, Pattern Recognition, Image Processing and Graphics 2017.

SKILLS

Python (Tensorflow, Scikit-Learn, OpenCV), Java, C/C++, C#, .NET, AWS, Azure Storage, Powershell, Git