# RISHABH SRIVASTAVA

#### Education

Columbia University

New York, NY

MS in Computer Science

Expected Dec 2024

Courses: Machine Learning, Natural Language Processing, Algorithms, Databases

Indian Institute of Technology Guwahati

Assam, IN

BTech in Electronics and Electrical Engineering, Minor in Computer Science

Jul 2017

Recipient of Samsung Fellowship Award, GPA: 8.82/10 Courses: Data Structures, Probability, Computer Vision

## Research Interests

Machine Learning, Computer Vision, Natural Language Processing, Reinforcement Learning

## Experience

#### Adobe Systems India Pvt. Ltd.

Noida, IN

#### Software Development Engineer 2

Jul 2021 – Aug 2023

- Mentored interns on enhancing AEM Assets Search via integration of BLIP (Bootstrapping Language-Image Pre-training) model for asset auto-captioning and GPT-4 for query pre-processing.
- Led end-to-end implementation of Smart Tags Block-list in AEM Assets Essentials. Users can block smart tags considered inappropriate for an asset and maintain a list of such tags to be blocked for all assets.
- Integrated state-of-the-art CLIP (Contrastive Language-Image Pre-Training) based model with AEM Assets' automatic tagging service, improving relevance and precision of generic smart tags by 75-90%.
- Served as Single Point-of-Contact for Smart Content Services (SCS) in AEM Assets.
- Solved 30+ localization, accessibility and vulnerability issues.
- Leveraged Sling, Apache Jackrabbit Oak and OSGi frameworks to optimize performance and enhance workflow efficiency.
- Contributed as an integral member of the Adobe Experience Manager (AEM) Assets team, driving asset lifecycle from inception to distribution seamlessly.

#### Indian Institute of Technology Guwahati

Assam, IN

#### Undergraduate Researcher

Aug 2020 - Apr 2021

- Proposed a novel architecture called Unrolled DRAGAN (Deep Regret Analytic Generative Adversarial Network), skillfully merging unrolling into DRAGAN to mitigate mode collapse.
- Obtained higher inception scores and reduction in mode collapse for MNIST data set, when compared to Vanilla GAN and DRAGAN architectures.

## Adobe Systems India Pvt. Ltd.

Noida, IN

#### Media and Data Science Research Intern

Apr 2020 – Jul 2020

- Conceptualised and implemented a new Reinforcement Learning-based algorithm to extract top relevant patterns from temporal, sequential data sets.
- Trained Deep Q-Network employing TF-Agents and extracted patterns ranked according to user-specified measure of interest.
- Proposed algorithm allowed monitoring and improving user-targeting based on certain Key Performance Indicators.

## Hanyang University

Ansan, KR

Research Intern

May 2019 - Jul 2019

- Developed and designed a new algorithm, termed Adaptive Shadowed C-Means (ASCM), to cluster data sets using fuzzy and shadowed sets.
- Reduced impact of noise in clustering by keeping outliers concentrated in shadow region.
- Implemented algorithm in MATLAB on Iris data set and Breast Cancer Wisconsin data set, and performed image segmentation on various sample images.

### Technical Skills

Languages: C, C++, Python, Java, MATLAB, HTML/CSS, JavaScript, React, PostgreSQL, mySQL

Technologies/Frameworks: Windows, Linux, GitHub, TensorFlow, PyTorch

Miscellaneous: LaTeX, Arduino, ArcGIS

## Accolades

- Samsung Fellowship Award: Was granted fellowship by Samsung with an objective for promoting research, for my B.Tech. Project on GANs.
- Department Rank 3: Achieved rank 3/47 in the department for overall academic performance.
- Rani Laxmi Bai Award for Meritorious Students 2017: Was felicitated by Chief Minister, Uttar Pradesh for securing 5th rank in the State, amongst 100,000+ students in CBSE Senior Secondary Examinations.
- Dhirubhai Ambani Scholarship Programme 2017: Qualified for the scholarship by Reliance Foundation by securing a rank in the merit list of Standard 12th Board Examinations.
- Certificate of Merit: Awarded by the Government of India for outstanding performance in Computer Science and English, being amongst the top 0.1% scorers in CBSE Boards 2017 in the entire country.
- SRMJEEE 2017 Rank 5: Secured 5th rank amongst 150,000+ students that appeared for SRM Institute of Science and Technology's Joint Engineering Entrance Examination in 2017.
- National Talent Search Examination 2015: Qualified NTSE stage 1 and secured 6th position in the state of Himachal Pradesh.

# Positions of Responsibility

Project Head, Electronics Club, IITG: Responsible for constant ideation of innovative projects, guiding juniors in club projects and administrative management of club.

Mentor, Saathi Counselling Cell, IITG: Mentored freshmen and helped them become acclimatized with academic and other institute activities.

Technothlon City representative, Jabalpur, 2018: Conducted Technothlon examination, managed by students of IITG, in Jabalpur, Madhya Pradesh.

#### Extra-curricular

CodeChef October Challenge 2020 (Division 2): Achieved rank 661 amongst 20,000+ participants globally. Flipkart Grid 2.0: Shortlisted amongst 130 from 8,000+ teams for Round 3 of Flipkart Software Development Challenge.

Publicis Sapient Jumpstart 2020: Achieved rank 379 amongst 2,000 participants.

Spardha 2018: Secured 4th position in inter-hostel sports competition for Squash.