RISHABH SRIVASTAVA

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Education

Columbia University — New York, NY
MS in Computer Science — Expected Dec 2024
Courses: Machine Learning, Natural Language Processing, Algorithms

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, 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 preciseness 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.