Divyanshu Talwar

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Work Experience

Goldman Sachs

Associate, Site Reliability Engineering — Jan 2022 - Present

Engineering applications to catalog, test, and auto-discover operational dependencies, enhancing the firm's observability and resilience. Facilitating effective scaling & planning, incident response & blast-radius analysis, risk management, and thorough recovery plan creation for business disruption scenarios.

Analyst, Technology Risk — May 2019 - Dec 2021

Engineered solutions for fast and reliable security incident identification and triage.

Indraprastha Institute of Information Technology (IIIT), Delhi

Teaching Assistant, Probability and Statistics — Jan 2019 - May 2019

Held weekly tutorials and office hours, helped prepare and grade assignments and exams.

Undergraduate Researcher — Jan 2018 - May 2019

Developed novel solutions for and using sparse-matrix imputation, achieving state-of-the-art results. Advisor: Dr. Angshul Majumdar

Undergraduate Researcher — Dec 2017 - Nov 2018

Worked on non-adversarial generative solutions, using disentangled latent representations, for facial images. Advisor: Dr. Saket Anand

Education

IIIT Delhi — New Delhi, India

Bachelor of Technology in Computer Science and Engineering — CGPA: 9.84/10 — Aug 2015 - May 2019

Ranked among the top 1% of the institute.

Skills

Languages & Libraries:	Python, C++, Java, Bash, C, Go, C#, Matlab, PyTorch, CUDA, OpenGL, Unity.
DevOps & Tools:	Docker, Kubernetes, Terraform, AWS, BigQuery, SQL, MongoDB, ElasticSearch, Kafka, ksqlDB.
Others:	Technical Architecture, Automation, Optimization, Code Reviews, Incident Postmortems.

Publications

Divyanshu Talwar, Aanchal Mongia, Emilie Chouzenoux, Angshul Majumdar; Binary Matrix Completion on Graphs: Application to Collaborative Filtering. **Digital Signal Processing** Vol. 122, 103350 (2022).

Divyanshu Talwar, Aanchal Mongia, Debarka Sengupta, Angshul Majumdar; AutoImpute: Autoencoder based imputation of single-cell RNA-seq data. **Scientific Reports, Nature** Vol. 8, 16329 (2018).

Relevant Coursework

Machine Learning	GPU Computing	Computer Graphics	Algorithm Design	Virtual Reality
Theory of Computation	Linear Algebra	Probability & Statistics	Operating Systems	Portfolio Management

Selected Projects

ShakaLakaBoomBoom	3D scene generation with inflated 2D sketches, maneuvered using hand-gestures.	2019
Parallel DFS	CUDA C++ implementation of the parallel DFS algorithm offering a $1.75\times$ speedup.	2018
Mapbots	Mapping rooms using an ultrasonic sensor ring mounted on an autonomous bot.	2016

Awards and Recognition

Dean's List for academic excellence awarded in all years at IIIT Delhi.	2016 - 2018
First runner up at Code-Off: All-India Hackathon with over 350 participating teams.	Oct 2017
Country topper at the Third Amity International Olympiad for Physics.	May 2014

Volunteer Experience

Mentored underserved college students, assisting them with interview preparations.	Sept 2022 - Mar 2023
Representative for the computer science class at Student Senate, IIIT Delhi.	Apr 2018 - May 2019
Coach to Team Victorious Secret, providing guidance throughout their RGSoC journey.	Jul 2017 - Sept 2017
Facilitated mathematics and science tutorials for underserved school students.	May 2016 - Jun 2016

Interests and Hobbies

Puzzles, Tabla, Bonsai care and Yoga.