Swasti Khurana

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in **LinkedIn**   🌐 **Website**   🌐 **Medium**   **Github**

EDUCATION

IIIT Vadodara	**Gandhinagar, India**
B.Tech in Information Technology	*Graduation: 07/22*
CPI: **8.83/10**	
Maharaja Sawai Man Singh Vidyalaya	**Jaipur, India**
Higher Secondary School (94.4%)	*Graduation: 03/18*

SKILLS

Programming Languages	Python, R, SQL, C/C++, Java, Javascript
Tools	LaTeX, Git, Colab, Jupyter, Visual Studio Code
Softwares	Tableau, Wireshark, HashSuite, Nmap, Selenium, Archimate, MySQL
Framework & Libraries	Numpy, Pandas, ROS, PyTorch, Scikit Learn, Matplotlib, Django

PUBLICATIONS

Infographics Wizard: Flexible Infographics Authoring and Design Exploration *EuroVis 2022*
- **Authors**: Tyagi, Anjul and Zhao, Jian and Patel, Pushkar and **Khurana, Swasti** and Mueller, Klaus
- **Journal**: Computer Graphics Forum
- **DOI**: 10.1111/cgf.14527
- **Link to publication**: https://diglib.eg.org/handle/10.1111/cgf14527

An Optimization Ontology for Goal Modelling Frameworks *IDAMS workshop (2022)*
- **Authors**: Novarun Deb, **Swasti Khurana**, Krishna Gaur, Raghu Raj Sodani, Akshat Dobriyal, Anuj Pillai, Sajib Mistry and Aditya Ghose
- **Conference**: Enterprise Design, Operations, and Computing (EDOC)
- **Workshop**: EDOC Workshop - Intelligent Digital Architecture, Methods, and Services for Industry 4.0 and Society 5.0

EXPERIENCE

Multi-Agent Robotic Motion Lab, National University of Singapore (NUS)	**Singapore**
Research Assistant with Prof. Guillaume Sartoretti	*January 2022 - Present*

- Current topic of research is Communications Learning in Multi-agent Reinforcement Learning

Algorithms to Architecture Lab, IIIT Delhi	**Delhi, India**
Research intern with Prof. Sumit Darak	*May 2021 - July 2021*

- Multi-player multi-arm bandit algorithms.
- Aggregator algorithm for the above mentioned algorithms.

Clique and WTM Ahmedabad (Link to Certificate)	**Ahmedabad, India**
Exploratory Data Analysis Research Intern	*December 2020 - January 2021*

- Mentors guided to help learn and explore the field of Exploratory Data analysis with Python and Tableau, published a blog on Medium (link here).

Clique (Link to Certificate)	**Ahmedabad, India**
Reinforcement Learning Research Intern	*June 2020 - July 2020*

- Worked with mentors to learn and explore the field of Reinforcement Learning, published two blogs on Medium (link here).

PROJECTS

Healthcare System	*April 2020 - Present*

- Build a portal as an attempt to connect the various healthcare services at one point - medicines, doctors, lab tests, and blood banks.
- Responsibilities consisted of building models and views in Django, learning and working on connecting APIs, etc.

Learning Linear Algebra through new Lights *July 2020 - December 2020*
o Using the concept of Linear Algebra formulated a game (in React) similar to, yet different from the traditional Lights-out.
o It also discusses rings and how they are related to solving graphs in Lights-out.

RELEVANT COURSEWORK AND CERTIFICATION COURSES

Relevant Coursework:
o Computer Programming and Problem Solving
o Linear Algebra and Matrices
o Discrete Mathematics
o Introduction to Data Structures
o Design and Analysis of Algorithms
o Probability and Statistics
o Topics in Deep Learning
o Information Retrieval
o Information Theory Inference and Learning

Certification Courses:
o AWS Machine Learning Foundations (Link to Certificate)
o Intro to Machine Learning (Link to Certificate)
o NVIDIA DLI Fundamentals of Deep Learning (Link to Certificate)
o Cryptography: Coursera Certification (Link to Certificate)
o Usable Security: Coursera Certification (Link to Certificate)
o Ethical Hacking (Link to Certificate)
o Cyber Security Technologies (Link to Certificate)

WRITINGS

Blogs:
o Exploitation and Exploration in RL (Link)
o TD-Gammon Algorithm (Link)
o Super Store Data Analytics and Visualization (Link)

Chapters:
o Public key cryptography (Link)

ACHIEVEMENTS AND EXTRA-CURRICULAR

Honors and Awards:
o GHC (Grace Hopper Celebration) 2021 Student Scholarship recipient by AnitaB.org (Link to Certificate)
o Secured 4th position in AWS DeepRacer Women's League India 2021. (Link to Certificate)
o Reveiwer for a paper in IROS 2022.
o Best Idea in HackIIITV, 2018 (Link to Certificate)
o Winner of Hired event in Cerebro 2021 - The technical festival of IIITV
o Secured third position in Travel photography in Synapse 2021, by DAIICT (Link to Certificate)
o Silver medalist in 3000m race at Inter IIIT Sports meet, 2020 (Link to Certificate)

Extra-Curricular:
o Weekly volunteer at Sikh Temple (January 2022 - Present)
o Participant in Letters to a Pre-Scientist (science outreach) and awarded for Exceptionally Engaging Letters (Link to Certificate)
o Basketball Silver medal in Inter-College Games (ICG) at NUS.
o Mentor of Obscura - Photography club of IIITV
o Completed 30 days of Google Cloud Program (Link to Certificate)
o Member of core committee with Clique for 4th edition
o Problem-setter and member of Enigma- Mathematics Club of IIITV
o Core member of MOD5 - Dance club of IIITV
o Core member of Masquerade- Drama club of IIITV
o Participant of Carrom, TT and Athletics in Inter IIIT Sports meet,2020
o Event organizer of Penumbera in Institute's Technical Fest (Cerebro - 2019)