

# Swasti Khurana

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## EDUCATION

### IIIT Vadodara

*B.Tech in Information Technology*  
CPI: 8.83/10

**Gandhinagar, India**

*July 2022*

### Maharaja Sawai Man Singh Vidyalaya

*Higher Secondary School (94.4%)*

**Jaipur, India**

*March 2018*

## SKILLS

### Computer 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

### Soft Skills

Leadership, Time Management, Teamwork, Interpersonal skills, Persistence

## PUBLICATIONS

### Infographics Wizard: Flexible Infographics Authoring and Design Exploration

*EuroVis 2022*

- o Worked on a research paper publication with a PhD student, Anjul Tyagi and his supervisor (Prof Klaus Mueller) in Stony Brook University. The paper is based on Computer Vision and Visualization, specifically Infographics generation.
- o Responsibilities include creating an interface, testing models, exploring codes from papers to reuse, writing a section etc.

### Paper submission in IEEE Transactions in Service Computing Journal

*Submitted for Review*

- o Collaborated with [Prof. Aditya Ghose](#) (University of Wollongong), [Dr. Novarun Deb](#) (Indian Institute of Information Technology, Vadodara), and [Dr. Sajib Mistry](#) (Curtin University) for a novel service area modeled for a Crowdsourced IoT Service market.

## EXPERIENCE

### Multi-Agent Robotic Motion Lab, National University of Singapore (NUS)

**Singapore**

*Research intern with Prof. Guillaume Sartoretti*

*January 2022 - Present*

- o Communications Learning in Multi-agent Reinforcement Learning
- o Developing algorithms on Pytorch framework

### Algorithms to Architecture Lab, IIIT Delhi

**Delhi, India**

*Research intern with Prof. Sumit Darak*

*May 2021 - July 2021*

- o Multi-player multi-arm bandit algorithms.
- o 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*

- o Mentors Dhvani Mehta and Sahaj Vaidya guided to help learn and explore the field of Exploratory Data analysis with Python and Tableau, published a blog on Medium.

### Clique ([Link to Certificate](#))

**Ahmedabad, India**

*Reinforcement Learning Research Intern*

*June 2020 - July 2020*

- o Worked with Dhvani Mehta and Bansi Gajera as mentors to learn and explore the field of Reinforcement Learning, published two blogs on Medium.

## PROJECTS

### Healthcare System

*April 2020 - Present*

- o Build models and views in Django.
- o Learn and work on connecting APIs.

### 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.

## CERTIFICATION COURSES

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### AWS Machine Learning Foundations ([Link to Certificate](#))

*Udacity*

- o Learn the fundamentals of machine learning and object-oriented programming best practices
- o Learn computer vision with AWS DeepLens, reinforcement learning with AWS DeepRacer, and generative AI with AWS DeepComposer.

### Intro to Machine Learning ([Link to Certificate](#))

*Kaggle*

- o Learn core ideas in machine learning, and build our first models.

### NVIDIA DLI Fundamentals of Deep Learning ([Link to Certificate](#))

*NVIDIA DLI*

- o Learn the fundamental techniques and tools with common deep learning data types and model architectures. Explore concepts of data augmentation and transfer learning.

### Cryptography: Coursera Certification ([Link to Certificate](#))

*University of Maryland on Coursera*

- o Introduction to modern cryptography, with an eye toward practical applications.

### Usable Security: Coursera Certification ([Link to Certificate](#))

*University of Maryland on Coursera*

- o Focus on how to design and build secure systems with a human-centric focus. It looked at basic principles of human-computer interaction, and how to apply these insights to the design of secure systems.

### Ethical Hacking ([Link to Certificate](#))

*Internshala Trainings*

- o Basics of Information Security, Computer Networking, Web Development, Information Gathering and VAPT of vulnerabilities, Documenting and Reporting Vulnerabilities.

### Cyber Security Technologies ([Link to Certificate](#))

*Career Nourishers*

- o OS Security, Password Cracking, Identity Theft, Malware, Worms, Key Loggers, Spyware, DDOS, Ransomware, DNS Filtering, SQL Injection, Cross Site Scripting, Firewalls, IDS & IPS, SIEM, Incident Response Plan, Cyber Forensic & Digital Evidence.

## WRITINGS

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### 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

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### 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 Reviewer 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 Penumbra in Institute's Technical Fest (Cerebro - 2019)