

EDUCATION

International Institute of Information Technology, Hyderabad, India
Bachelors and Masters by Research in Computer Science and Engineering

Aug 2016 - May 2021 (expected)
CGPA: 9.04/10.0, *Dean's List*

WORK EXPERIENCE

National University of Singapore

May 2019 - Present

- Working as an intern at the School of Computing under the guidance of Dr. Terence Sim.
- Developed a model robust under various conditions like video quality, frame rate and fake creation method for fake video detection.

Center for Visual Information Technology, IIIT Hyderabad

May 2018 - Present

- Working under the guidance of Dr. Anoop Namboodiri in the field of biometrics.
- Created a data augmentation method for fingerprint spoof detection resulting in upto 3% increase in TDR.
- Working on projects revolving around spoof detection, generative adversarial networks and metric learning.

Software Engineering / Data Science Intern, Media.Net

June 2018 - July 2018

- Worked in the data science team to predict user advertisement preferences.
- Implemented automated pipelines for text representation, feature extraction, training and evaluating models using Pyspark.

ACHIEVEMENTS

ACM International Collegiate Programming Contest (ICPC)

(November 2017)

- Member of team Tesla which stood Third and Fourth all over India at the Kharagpur and Amritapuri Regionals respectively.
- ACM ICPC is the most prestigious programming competition at the college level.

International Olympiad in Informatics Training Camp

(May 2016)

- Selected amongst 27 students from all over India.
- Selected to represent India at the Asia-Pacific Informatics Olympiad.

PUBLICATIONS

- *Universal Material Translator: Towards Spoof Fingerprint Generalization*, R. Gajawada*, **A. Popli***, T. Chugh, A. Namboodiri, A.K. Jain, *ICB 2019*

PROJECTS

Fingerprint Spoof Detection

(PyTorch, Python)

- Implemented a pipeline to segment out a fingerprint from an image, extract patches from it and perform spoof detection on these patches using a deep learning model.

Linux Shell

(Python)

- Implemented a basic Bash-like shell using systems calls with support for features like piping, I/O redirection and foreground and background processes.

Chess Plus

(ExpressJS, MongoDB)

- Worked in a team to implement a web application for playing chess. Added features like playing against friends/random opponents/AI, live chat and an ELO based rating system.

Ultimate Tic-Tac-Toe Bot

(Python)

- Developed a tree search based game bot using minimax algorithm, alpha beta pruning and iterative deepening.

Pacman Killer and Legend of Zelda

(OpenGL, C++)

- Built a 2D similar to Pacman Killer game and a 3D game similar to the Legend of Zelda game in OpenGL and C++.

TECHNICAL SKILLS

- **Programming Languages:** Python, C, C++, Bash
- **ML/DL/CV:** PyTorch, Tensorflow, OpenCV, scikit-learn, scikit-image, pandas
- **Other:** PySpark, Git, LaTeX, OpenGL, MySQL, MongoDB, HTML, CSS, JS, Web2py

RELEVANT COURSES

Computer Vision, Machine Learning, Digital Image Processing, Data Analytics*, Optimization Methods, Artificial Intelligence, Computer Graphics, Distributed Systems*, Database Systems*, Linear Algebra, Data Structures, Algorithms, Computer Networks, Operating Systems