# Vishal Saranathan

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## EDUCATION

**National Institute of Technology (NIT)** — Tiruchirappalli, TN, IND
*Bachelor's in Technology with Honours in Computer Science* — *July 2017 – May 2021*
- Minor in Management Studies
- Cumulative GPA: 8.77/10

**Maharishi Vidya Mandir - CBSE** — Chetpet, TN, IND
*Computer Science Stream* — *July 2015 – May 2017*
- AISSCE: 96.2% (Top 0.1% of students in India)
- JEE Mains Rank: 2955 out of approx. 1.2 Million Aspirants

**P S Senior Secondary School - CBSE** — Mylapore, TN, IND
*Middle School* — *July 2015 – May 2017*
- Cumulative GPA: 10/10
- Received a letter of appreciation from Government of India

## TEST SCORES

- GRE: 325/340 (Quantitative: 167, Verbal: 158, AWA: 4.0)
- TOEFL: 116/120 (Reading: 30, Listening: 30, Speaking: 27, Writing: 29)

## RESEARCH/WORK EXPERIENCE

**Undergraduate Researcher** — September 2020 – Present
*NIT Tiruchirappalli*
- Supervisor: Dr. Rajeswari Shridar (Ongoing project)
- Working on real-time vehicle accident detection and warning system for my bachelor's thesis project.
- Completed literature survey and exploring along the lines of deep ensemble models for novel detection system.

**Software Development Intern** — May 2020 – June 2020
*Oracle India*
- Interned with the Identity Management group
- Explored Helm charts and Kubernetes for Oracle Unified Directory
- Added extra functionalities to Helm charts for supporting user-defined operations for Oracle Unified Directory server

**Artificial Intelligence Intern** — May 2019 – July 2019
*Sutherland Global Services*
- Interned with the Platforms Solution Group and developed an image processing module that auto-aligned skewed documents in photographs
- Developed a custom trained UNet – based segmentation module in Tensorflow and OpenCV
- Achieved an accuracy bump of 40% over the previous implementation

## PROJECTS

**Securise** | *Python, PyTorch, OpenCV, Flask* — August 2020 – Present
- Developed an Automatic Number Plate Recognition System for our college campus that logs entrance and exit of vehicles
- Designed a vehicle data extraction pipeline from the ground up, used a FasterRCNN implementation with Resnet101 for vehicle data extraction
- Working on implementing a frontend and backend to relay data between the camera and the system.

**Document Requisition Portal** | *ReactJS, Redux, NodeJS, Sequealize, MySql* — July 2020 – September 2020

- A document request and verification portal created for NIT Trichy in the light of pandemic. The website has a student and admin portal for requesting, verifying and approving the requests.
- Managed and Developed the frontend for the website using ReactJS
- Website: *https://studentrequest.nitt.edu*

**Smart-SQLizer (Personal Project)** | *Python, OpenCV, PyTesseract*                    March 2020 – April 2020
- A python tool that helps in creating SQL tables and adding records to it from tables present in an image
- Created using OpenCV for detecting tables and pytessearct for text detection and saved in the user's MySQL database.
- Code: *https://github.com/VishalS99/Smart-SQLizer*

**Spider Website** | *ReactJS, MaterialUI*                    September 2019 – November 2019
- Worked on revamping the Spider R&D Club's Website
- Managed and Developed the website using ReactJS from scratch
- Website: *https://spider.nitt.edu/*

## TECHNICAL SKILLS

**Languages and Frameworks**: Javascript, Python, C/C++, MySql, MongoDB, React, Tensorflow, Pytorch, Flutter
**Developer Tools**: Git, Docker, Kubernetes, VS Code
**Libraries**: OpenCV, NumPy, PyTesseract
**Certification Courses**: DeepLearning.AI TensorFlow Developer Professional, Machine Learning A-Z

## EXTRA-CURRICULARS/ POSITIONS OF RESPONSIBILITY

**Joint Treasurer and Web Developer**                    September 2018 - Present
*Spider Research and Development Club, NIT Trichy*

*Treasurer*                    *May 2020 - Present*
- Handled the finances of the club, participated in club budget presentation, managed reimbursements.

*Synergy WebOps Head*                    *January 2020 - March 2020*
- Lead and managed the web requirements for the college's Mechanical Department's Symposium.
- Website: *https://synergynitt.com/ (Site, at present, not updated for next edition.)*

**Core Team Member**                    December 2019 - June 2020
*Developers Student Club, NIT Trichy*
- DSC NITT is a Google Developers program aiming to be a new fraternity of developers that strengthen the bridge between Google and the institute.
- Conducted various knowledge sessions and workshops on areas of Machine Learning and Flutter

**Workshops Manager**                    May 2019 - Present
*Festember'20*
- Managing a team of 2nd and 3rd years in organizing the workshops and informals that take place during Festember'20, one of India's largest cultural fest.
- Overseeing activities related to the workshops, and ensuring their smooth conduct

**Photographer And Videographer**                    March 2018 - Present
*Pixelbug Media Club*
- Lensman for all the cultural and technical fests of our college
- Ideated and executed the EditMyRaw photography event and received nearly 400 participation in its first edition.

## ADDITIONAL WORKSHOPS CONDUCTED

- Speaker in *ExploreML* workshop, Developers Student Club; lectured on neural network processing
- Conducted a seminar on basic web technologies during inter-collegiate symposiums

## LANGUAGE SKILLS

English, Tamil(Native), Sanskrit