

# Nadeem Mohammed Shajahan

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## EDUCATION

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- **TKM College of Engineering** Kerala, India  
*Bachelor of Technology in Electronics and Communication Engineering; GPA: 7.09* Aug. 2016 – May. 2020
- **Sharjah Indian School** Sharjah, United Arab Emirates  
*Central Board of Secondary Education; Percentage : 72%* Apr. 2012 – May. 2016

## EXPERIENCE

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- **Neuroplex** Trivandrum, India  
*Deep Learning Intern* Jun 2018 - Aug 2018
  - **Work Done:** Researched and developed an AI based surveillance system for live traffic monitoring and analytics for Kerala Police. The system had features which included accident detection, video captioning, explosion/fire detection, automated parking ticket issuance in accordance with the road traffic violation etc. I was responsible for helmet, motorbike, person detection and localization using Darknet, Keras and other deep learning frameworks.
- **Agrivator** Kollam, India  
*Machine Learning Intern* Aug 2017 - May 2018
  - **Work Done:** Data analytics for realtime data from large array of sensors placed in aquaponics, conventional farming and other soil moisture sensors in the system. Developed a model to use the data to predict the adequate amount of water supply that would be required to support optimal growth.
- **Microsoft** Hyderabad, India  
*Student Partner* Sept. 2017 - Present
  - **Duty:** Organizing workshops, technical events and meetups to share knowledge and learn collectively. Received exclusive learning opportunities from Microsoft in fields like Machine Learning, Cloud Computing, Virtual Reality, Azure Platform and similar areas.

## PROJECTS

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- **Eyes - Age:** A complex computer vision model based on darknet to analyze live footage of traffic surveillance cameras and identify traffic violations such as not wearing a helmet, not wearing seatbelt. Also developed a model to caption live videos in 20s intervals and categorize them into different categories such as attack, explosion, road traffic accident, fire etc.
- **Deep Learning Flappy Bird:** Developed, trained and tested a deep reinforcement learning model to play Flappy Bird on its own.
- **Neural Style Transfer:** Trained and tested a Deep Neural Network that creates artistic images of high perceptual quality. The system uses neural representations to separate and recombine content and style of arbitrary images, providing a neural algorithm for the creation of artistic images.
- **Custom YOLOv3:** Modified and trained an existing model of YOLOv3 model bound on Keras to do custom object detection for use in aerial surveillance drones.
- **Tink:** Tink is a chatbot developed on Azure platform for a treasure hunt conducted by IEEE SB powered by Azure Cognitive Text API.
- **Face Generation:** C
- **Image Classifier:** Simple image classifier using Tensorflow with CIFAR-10 dataset.

## PROGRAMMING & OTHER SKILLS

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- **Languages:** Python, JavaScript, C++, MATLAB, C#, SQL, Assembly, HTML, CSS
- **Technologies:** Keras, Tensorflow, Cython, Scikit-Learn, cuDNN, CNTK, OpenCV, Node.js
- **Tools:** Git, ROS, Visual Studio, Azure, AWS, Intel DevCloud, Gazebo, Adobe Creative Suite, LaTeX

## OTHER EXPERIENCE

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- **Millennium Campus Network** MA, United States  
*United Nations Millennium Fellow & Campus Director* Aug 2018 - Present
  - **Duty:** The Millennium Fellowship is a semester-long leadership development program that is offered by United Nations Academic Impact and MCN to elevate leadership, and to ensure that we have the training, network, and recognition needed to take social impact to the next level.  
As the campus director, I would be responsible for convening sessions, initiating engagement and to make sure that the social impact projects are completed in the stipulated time and document their impact on the community.
- **Special Interest Group - Artificial Intelligence** Kerala, India  
*Mentor* Aug 2018 - Present
  - **Duty:** As the mentor for SIG-AI, I am expected to take sessions on Machine Learning, Artificial Neural Networks and Deep Learning.
- **United Nations Academic Impact - ASPIRE, TKM College of Engineering** Kerala, India  
*Technical Lead* Aug 2018 - Present
  - **Duty:** As the technical head, I am responsible for the technical part of all the events that will be organised under UNAI. I am also responsible for conducting technical sessions and workshops under UNAI.
- **Innovation and Entrepreneurship Development Cell, TKM College of Engineering** Kerala, India  
*Entrepreneurship Cell Head* Aug 2018 - Present
  - **Duty:** I am responsible for handling events and heading the entrepreneurship cell of the IEDC. E-Cell promotes startups and inculcates a sense of entrepreneurship among the students.
- **Microsoft Developer Community** Kerala, India  
*Core Member* Aug 2018 - Present
  - **Duty:** To lead, organize and conduct events regularly and promote Microsoft Technologies in Kerala.

## ACHIEVEMENTS

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- **Google India Challenge Scholar:** Scholarship granted for the Front-End Web Developer track. Selected from among 50,000 applicants.
- **Young Innovator, Kerala:** Selected to Young Innovators Programme, Kerala Development and Innovation Strategic Council from among 2000 applicants.
- **Delegate, Young India Challenge:** Young India Challenge (YIC) is a two day experiential national event for the top creative young minds to engage in innovative programs that will broaden their mindset and move them closer to what they love doing. Participants are selected from across the country.
- **MOOCs Completed:** Machine Learning by Stanford University, Deep Learning Foundation by Udacity, Robotics Specialization by University of Pennsylvania, CS:50 by Harvard University, The Complete Python 3 Course by Udemy.