Sandeep N Menon

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EDUCATION

NIT SURATHKAL
BTech in Computer Science
May 2018 | Karnataka, India
CGPA: 8.83/10

KENDRIYA VIDYALAYA RB
Grad. May 2014| Kottayam, Kerala
2nd in class, 97.00%
Centum in Mathematics

COURSEWORK

UNDERGRADUATE
Computer Vision
Artificial Intelligence
Linear Algebra
Probability Theory
Advanced Data Structures
Graph Theory

ONLINE

Computer Vision Nanodegree
Udacity Nanodegree
(Image Captioning using CNN-RNN,
Landmark Detection and Tracking using
2D Graph SLAM)

Deeplearning Specialization
deeplearning.ai
(Neural Networks and Deep learning,
Structuring Machine Learning Projects,
Convolutional Neural Networks,
Sequence Models)

Statistical Learning
StanfordOnline: STATSX0001
(Boosting trees, Discriminant
Analysis,Splines, Support vector machines)

PROGRAMMING SKILLS

Proficient:
C++ • C# • Python • JavaScript
MySQL
Project experience:
PyTorch • Tensorflow • Keras • SciPy
OpenCV • Azure • React.js • Three.js

EXTRA CURRICULAR

• President of Web Enthusiasts Club NITK
• Core executive member at IEEE NITK
Student Chapter
• 1700+ rated chess player in Chess.com

EXPERIENCE

DEEPEN AI | Deep Learning Research Engineer
September 2020 - Present | Hyderabad, India

- Developed offboard deep neural network prediction pipeline to get semantic segmentation of 3D point cloud sequences. Pre-labelled sequences improved data annotation speed by 30%.
- Designed augmentations to the Sparse Point-Voxel CNN model for domain adaptation to achieve mIoU score of 76% for 3D Semantic Segmentation.
- Implemented Object-aware Anchor-free Tracking for 2D Visual Object Tracking.
- Implemented VPGNet model for lane segmentation and classification.
- Developed on-demand GPU VM allocation system in Azure. Dynamic allocation and de-allocation of expensive GPU machines as per need, saving upto 1000 USD per month.

MICROSOFT | Software Engineer
June 2018 - September 2020 | Hyderabad, India

- Developed new machine learning method to identify similar won deals in CRM context for *Relationship Analytics* in Dynamics 365.(Patent pending)
- Shipped *Dynamics 365 Sales Insights connector* in Microsoft Flows. Handles more than 9M monthly requests.
- Received two promotions in two years.

MICROSOFT | Software Engineering Intern
May 2017 – July 2017 | Hyderabad, India

- Developed multi-tenant NLP pipeline to extract actionable insights from sales executive notes.
- Received full-time position offer after the internship.

PUBLICATIONS

[1] Y. A. A. B. N. Sandeep N Menon, V B Vineeth Reddy and D. J. Rajan. A novel deep learning approach for the removal of speckle noise from optical coherence tomography images using gated convolution deconvolution structure. *3rd International Conference on Computer Vision & Image Processing*, 2019.

PROJECTS

VIRTUAL GYM TRAINER | Demo link

- Developed a platform where trainers upload their exercise specifics and then users are guided through them using audio and visual cues.
- Real-time human pose estimation using PoseNet network and geometric estimations to measure correctness of posture while exercising.

AWARDS

2020	Patent	Microsoft Patent Award
2019	1st position	Microsoft Intelligent Edge Hackathon
2017	Best short paper	Microsoft Artificial Intelligence Meet
2017	4th/1000+	IEEEXtreme 11.0 Programming Competition
2014	Top 0.1%	National Level Mathematics Board Exam