Pavithran Pandiyan

Date of birth: 05/12/1994 | Nationality: Indian | Gender: Male |

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WORK EXPERIENCE

01/03/2020 – CURRENT
COMPUTER VISION INTERN – AGT International

- Implemented inference code based on paper 'Background Matting', creates alpha mattes from a given video
- Developed Input pipeline for training the model, which includes making python code to fetch and format source from S3, dropbox, local directories
- Developed 'video to local share server' features in an IOS App to record AR videos
- Grid analysis on feature extractors of Object Localizing Deep Neural Networks

Darmstadt, Germany

15/01/2019 – 31/12/2019
STUDENT RESEARCH ASSISTANT – Fraunhofer IPA

- Augmented Reality application development on Hololens, for visualization of sick laser scanner in AR space, to guide Humans in Robot Environments.
  - Integrating Robotic Operating System (ROS) with Hololens UWP Application.
  - Experience developing applications in Unity3D.
  - Prototyped the concept using ARCore in Android Application.
- Active Learning for Labeling defects in manufacturing raw materials.
  - Developed an active learning pipeline to continuously train the model to assist human annotators.
  - Built and trained TensorFlow JS models to Visual Object Tracking Tool.
  - Experience developing React + Redux based Applications.
  - Surveyed literature of various DNN models for Object Tracking for active learning.

Stuttgart, Germany

27/06/2016 – 03/09/2018
SENIOR ENGINEER – Nokia

Nokia R&D Site - Fixed Networks Broadband Access
Worked in various software releases and developed features for FTTU 7342 and ISAM 7360 (NOKIA's line of GPON Broadband access nodes).
Strong C/C++ programming skills.

End to end Understanding, of the Broadband access system
Developed Linux shell and python scripts, to speed and automate day to day activities.
Experience Maintaining local Sanity systems, controlled and analyzed smoke tests with Jenkins.
Good experience using version control software like GIT, Mercurial and Clearcase.
Maintained Code browsing server with Opengrok.

Chennai, India

01/08/2013 – 01/04/2016
STUDENT ENGINEER – SRM Humanoid Team

•Programmed the Humanoid robot using embedded Linux boards like Raspberry Pi, ODROID , CHIP.
•Experience working in ROS - Robot Operating system, for controlling Robotis Dynamixel MX & AX high torque high precision motors in the humanoid robots made from scratch at the center.
•Good understanding of the inverse kinematics algorithms involved in Robot motions like bipedal walking, kicking, painting.
•Robot simulations in 3D environment using Gazebo and MoveIt! motion planner
•Won Bronze medal in freestyle event at Robogames 15, San Mateo, California.

Kancheepuram, India

EDUCATION AND TRAINING

01/10/2018 – CURRENT – Stuttgart, Germany
Masters in Information Technology – University of Stuttgart

Detection & Pattern Recognition
Deep Learning
Smart Cities and Internet of Things
Imaging Science
3D Printers and Scanners
Robust System Design
Basic Subjects: Operating Systems, Computer Architecture and Organization, Advanced Mathematics

01/08/2012 – 01/05/2016 – Kancheepuram, India
Bachelor of Technology - Electronics and Communication Engineering – SRM University

Electronics : Linear Integrated Circuits, Embedded Systems, VLSI , Digital Circuits, Electronic Devices, Microprocessors and Microcontrollers.
Communication Theory : Digital communication, Information Theory, Microwave Communication , Antenna and Wave guide propagation, Wireless communication, Computer networks

• LANGUAGE SKILLS

Mother tongue(s): **TAMIL**

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
GERMAN	A1	A2	A1	A1	A1
ENGLISH	C2	C1	C1	C1	B2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

• DIGITAL SKILLS

C | C++ | Python | MATLAB | Unity3D | Git | Linux Operating System | Android Programming | FlutterDart | Internet Protocols and Network Layers

• JOB-RELATED SKILLS

Job-related skills

Good math aptitude and problem solving skills.
Good experience in various embedded development boards like Arduino, Raspberry Pi, ODROID, CHIP.
Experience working in machine learning following frameworks: TensorFlow, Keras and Pytorch.