Abhinuv Pitale

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Education

Master of Engineering in Computer Engineering, Virginia Tech **May'19 (**Expected**)**
GPA: 3.9/4

B. Engineering in Electronics & Telecommunication, University of Pune **May'16**
Awarded Consistently High Academic Performance (C.H.A.P) Award

Skills

Courses : Computer Vision, Parallel Computing, Data Analysis, Wearable Computing, Networks, Virtual Environments
Languages : Python, C, MATLAB, C++, Android, HTML, Javascript, SQL
Tools : Git, Jira, Travis, Tensorflow, Keras, Pytorch, Docker, GNU Radio, CANoe,CANape, Vector tools

Work Experience

Kitty Hawk Corporation **Aug'18 - Nov'18**
- Bringup, integration and testing of novel aviation sensor solutions for an autonomous electric aircraft.
- Defined and validated requirements against aviation standards for certification

DeepSig Inc. **May'18 - Aug'18**
- Designed and implemented wireless channel synchronization using GNU Radio
- Modelled properties of a wireless channel using deep learning

Neural Dynamics Lab, Virginia Tech **Nov'17 - May'18**
- Interfacing of EEG and ECoG based Brain Machine Interfaces
- Studying and implementing various deep learning architectures for classification in BMI

Mercedes Benz R&D, India **Aug'16 - Jul'17**
- Design and Simulation of an autonomous lane shift algorithm
- Tool automation for calibration of Emission data over CAN to reduce job time on a HiL by 90%

Defense Research & Development Organisation **Jun'15 - May'16**
- Modeling for Simultaneous Localization and Mapping (SLAM) for inertial navigation system
- Built firmware on LPC1769 for signal processing and conditioning using an IMU

San Telequip Pvt. Ltd. **Jun'14 - Nov'14**
- Prototyping a wireless doorbell and setup its client-server interaction over an Apache server

Projects

Pong using BMI using EEG
- Using Mu rhythms, created a Pong game for learning to use EEG datasets using open source tools

Pathfinder - Minimalist Bicyclist Navigation device
- Small, Low Power, Intuitive Navigation aid using arduino, LEDs and Android!

FingerSpeller - American Sign Language using DL/ML
- Real-time gesture recognition using Deep Learning as well as feature based Machine Learning/Computer Vision

Cyber Security Data Analysis
- Word Clouds, Clustering, Model Creation for evidence of malware, keylogging and suspicious behavior

Data Driven Astronomy
- K-d trees for cross referencing galaxies across datasets and CART tree models for galaxy classification

Robocon 2014 - 2nd Runner Up
- 6DOF semi-autonomous robot created for a national level robotics competition

Freescale Cup - 4th Place
- PID controlled racing model car, using a CCD camera for track detection

About me

I like contributing to open source projects, playing the piano and making fun things with a raspberry-pi!