Aditya **Galada**

412-626-0323 | adityagalada@gmail.com | adityagalada.github.io | linkedin.com/in/adityagalada

Education

Carnegie Mellon University   *Pittsburgh, PA*
M.S. IN MACHINE LEARNING   *Aug 2018 - Present*
- Coursework - *(in progress)* Introduction to Machine Learning, Machine Learning with Large Datasets, Probability and Mathematical Statistics

Nanyang Technological University   *Singapore*
B.ENG. IN ELECTRICAL AND ELECTRONIC ENGINEERING - (SPECIALIZATION IN COMPUTER ENGINEERING)   *Aug 2014 - May 2018*
- Graduated with Highest Distinction - **GPA: 4.92 / 5.00**
- Selected Coursework - Artificial Intelligence & Data Mining, Data Structures & Algorithms, Web Application Design, Computer Architecture Computer Networks, Enterprise Network Design

University of Wisconsin - Madison   *Madison, WI*
EXCHANGE SEMESTER   *Sep 2016 - Dec 2016*
- Global Engineering Exchange Program : Fall 2016 - **GPA - 3.9/4.0**
- Selected Coursework - Digital Signal Processing, Cryptography, Microprocessor Systems

Work Experience

Delta Electronics Int'l Pte Ltd   *Singapore*
RESEARCH INTERN   *Jan 2017 - May 2017*
- Designed and optimized algorithms in MATLAB to filter ECG data and suppress noise contamination.
- Developed a Graphical User Interface for detailed analysis of ECG data collected in 36 cardiac rehabilitation exercise sessions.
- Performed Heart Rate Variability analysis on patient data using time-domain, frequency-domain, geometric and non-linear methods.
- Designed blind source separation algorithms to remove the heart sound contamination from lung sound signal recordings using STFT coefficients.

Daimler Trucks Asia   *Chennai, India*
ENGINEERING INTERN   *Jun 2016 - Jul 2016*
- Prototyped a Connected Vehicles System for Medium Duty Truck Platform.
- Developed a system to capture 12 critical parameters from the Engine Control Unit via OBD-II interface.
- Successfully implemented live transmission of vehicle data to a remote server using GPRS.
- Developed a dynamic web-based GUI for monitoring real-time engine parameter graphs & for tracking vehicle location.

Research Projects

Machine Learning and Data Fusion for an intelligent wearable device   *Singapore*
UNDERGRADUATE RESEARCH + FINAL YEAR PROJECT   *Aug 2016 - Jul 2018*
- Developed machine learning algorithms for an intelligent wearable device at EEE Joint Lab on Internet of Things.
- Successfully estimated respiratory rate with a 6.12% error using instantaneous frequency filtering of IBI times series.
- Proposed data fusion techniques to improve accuracy of existing SVMs for bio-signal based age-group classification to 90%.
- Implemented data fusion on ensemble of neural networks to increase heart sound anomaly detection accuracy to 88.75% on CinC 2016 dataset

Development of an onboard computer system for nanosatellite   *Singapore*
UNDERGRADUATE RESEARCH   *Aug 2015 - Jul 2016*
- Developed an onboard computer system for a smartphone based nano-satellite using Arduino Mega ADK platform.
- Designed and implemented 3 modes of operation: low-power mode, ground pass mode and data acquisition mode.
- The project involved : capturing sensor data from android phone, saving to external memory and transmission to ground station during ground-pass.

Honors

- Placed on the **Dean's List** in **AY14-15, AY15-16, AY17-18** for meritorious performance (top 5% of the cohort)
- Awarded the title of **'President Research Scholar'** on completing the URECA (Undergraduate Research Experience on CAmpus) Program with distinction

Publication

A. Galada, J. Zhang, Y. Yong Kiang, S.Wee, L. Zhiping, D. Tan, Y. Chow, S. Tony, J. Chow and D. Foo, "ECG Signal processing and analysis for data arising from rehab patients doing exercises", in IEEE International Symposium on Circuits and Systems, 2018.

Skills

C • C++ • MATLAB • Python
CSS • JavaScript • PHP • MySQL
LaTeX • ARM Assembly

Extra - Curricular

IEEE-NTU Student Branch	*Vice President*	Sep 15 - May 17
NTU-EEE Club	*Academic Officer*	Sep 15 - May 16
NTU Student Union	*Business Manager*	Sep 15 - May 16