Theodor M. Perivolaris

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Relevant Experience

Research Student   *May. 2015 - Present*
University of Toronto

- Responsible for designing an algorithm capable of classifying sleep stages based on surface EEG signals
- Research current literature for existing methods of sleep stage classification
- Research best practices for data acquisition, and testing of algorithms on lab acquired signals

Project Manager - Capstone Design Project   *Oct. 2013 - Apr. 2014*
Ryerson University

- Developed and tested an iOS App., which allowed a user to capture, crop, and rotate a photo of an unknown skin condition and then classify the skin condition
- Configured neural network for classification of skin conditions ($N = 6$), and made a 30% increase of test set accuracy by writing a script to optimize hyper-parameter settings
- Curated dataset of training images, synthesized new data from existing dataset which increased neural network accuracy
- Attended regular meetings with supervising professor where we demonstrated our milestone achievements, and generated weekly progress reports.

Technical Skills

- MATLAB
  Simulink, Image Processing, Signal Processing, Parallel Computing, Neural Networks
- Python
  Pandas, NumPy, SciPy, SciKit Learn, Requests, BeautifulSoup
- R

Other Selected Projects (Academic and Personal)

- "Exploratory analysis of Enron e-mail corpus usisng machine learning algorithms in Python including natural language processing"
- "Design, fabrication and testing of 3 lead monitoring electrocardiogram (ECG)"
- "EEG signal analysis for the dection of seizures using MATLAB"
- Conducted field study and analysis on the use of rapid serial visual presentation to increase the rate of reading

Volunteer Experience

Ryerson Engineering Student Society   *Jan. 2012 - Oct. 2012*
Orientation Week Chair

- Organized and supervised Orientation events for over 1,000 Engineering students.
- Secured and managed the $18,000+ budget, a 55% increase from the previous year, by presenting the need for an increase to the Dean of Engineering.
- Managed a team of 3 vice-chairs, 10+ organizing volunteers, and 90+ student leaders.
- Prepared feasibility and risk management analysis for the 15 orientation events

FIRST Robotics Competition - Team 907   *Sept. 2010 - Dec. 2012*
Mentor

- Advised Team 907 through strategy synthesis and design process.
- Developed and maintained relationships with student team members and mentors.

Education

B.Eng
Ryerson University
Biomedical Engineering

Key Courses
- Design of BioMEMS
- Radiation Therapy Devices
- Biomedical Image Analysis
- Biomedical Instrumentation
- Human-Computer Interfaces
- Biomedical Signal Analysis
- Anatomy/Physiology

Other Skills
- Microsoft Office Suite
- Apple iWork Suite
- Adobe Creative Suite
- Git