MAI BUI

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EDUCATION

The Catholic University of America, Washington, D.C., USA — Jan 2018 – Dec 2020
B.Sc. in Computer Science, Double Minors in Mathematics and Data Analytics — GPA: 3.77/4.0
Coursework: Data Structures, Machine Learning, Data Analytics, Software Engineering, Web Programming.

WORK EXPERIENCE

Medstar National Rehabilitation Network, Washington, D.C., USA
Research Assistant — Aug 2020 - Present

- Working on electroencephalography (EEG) signal processing for neurorehabilitation research.
- Writing Matlab scripts for data acquisition of EEG signals, force sensors, electromyography (EMG) signals, transcranial magnetic stimulation (TMS) data.
- Utilizing data analysis and interpretation methods to the neurophysiology of stroke recovery.

The Catholic University of America, Washington, D.C., USA
Web Specialist — May 2018 - Present

- Using Cascade Server CMS to develop new content and workflow on the website to ensure highest quality.
- Implementing campaign emails, collecting leads' data, and providing weekly reports on Saleforce.
- Managing daily social media across several platforms to meet group's advertising goals.

Rehabilitation Engineering Research Center DC, Washington, D.C., USA
Research Intern — May 2019 – Aug 2019

- Utilized deep learning and Intel Realsense SDK to assess the development of hand grasp and predict future outcomes in infants at risk for motor delay.
- Collaborated with a group of researchers to deliver outstanding results on multiple projects by performing exceptional research, communication, and project-management skills.
- Collected and recorded home-based data with several participants for later assessment and analysis.

PROJECTS

Autonomous Driving Robot — Aug 2019 – May 2020

- Developed an autonomous robot using NVIDIA Jetson Nano board and Raspberry Pi Camera.
- The robot can avoid obstacles, keep track of the lane lines, and recognize determined traffic signs.
- Deep learning frameworks: PyTorch, Tensorflow.

Home assessment of grasp development in infants at risk for fine motor delay — May 2019 – Aug 2019

- Assessed spontaneous hand use using video capture (Intel Realsense D435) and interactive grasp force with instrumented toys in infants.
- Signaled potential avenues for early interventions to encourage object exploration & functional hand use.
- Performed different deep learning approaches: DeepLabCut, OpenPose, Deep High Resolution HRNet.

TECHNICAL SKILLS

Programming Languages Python, Java, R, C/C++, MATLAB
Web Programming HTML, CSS
Frameworks/Libraries NumPy, Matplotlib, scikit-learn, pandas, PyTorch, Tensorflow, PyQt

CERTIFICATES

Intro to Machine Learning with Tensorflow, Udacity
Machine Learning, Stanford University, Coursera
Intro to Self-Driving Cars, Lyft, Udacity

HONORS & AWARDS

Grace Hopper Celebration of Women in Computing Scholarship — 2020
Pope Francis Engineering School Scholarship in Catholic University — 2018 - Present