RAMRAJ CHANDRADEVAN

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OBJECTIVE

Looking for research internship opportunities in Information Retrieval, NLP, Computer Vision, Data mining.

EDUCATION

PhD in Computer Science and Informatics Aug. 2019 - Present
Information Retrieval(IR) Lab, Emory University, Atlanta, GA

BSc.(Hons) in Electronic and Telecommunication Engineering Nov. 2014 - Dec. 2018
Faculty of Engineering, University of Moratuwa, Sri Lanka GPA : **3.80**/4.20 **First class(Honours)**

Private Pilot Licensing (PPL) Jan. 2016 - Jun. 2017
Skyline Aviation, Ratmalana, Sri Lanka

SKILLS

Fields : Information Retrieval, NLP, Computer Vision, Data mining, Robotics, Deep Learning.
Tools : Python, C++, Java, PyTorch, TensorFlow, Keras, Theano, Dask, Docker, Git, MATLAB, R, RStudio, ITK.

EXPERIENCE

Research and Development Intern — Kitware, Inc Chapel Hill, NC
Medical Computing Team *Feb. 2019 - Jul. 2019*
- Applied Deep Learning and Machine Learning techniques in Computer Vision and Image Processing applications.

Undergraduate Research Intern — CooperLab, Emory University Atlanta, GA
Department of Biomedical Engineering and Bioinformatics *Jun. 2017 - Dec. 2017*
- Applied Deep Learning techniques to learning-to-rank problem in survival analysis.

Software Developer Intern — Foysonis WMS Carry, NC
Warehouse Management System - Startup *Jul. 2016 - Mar. 2017*
- Designed home web-page, blog web-page, and payment gateway integration.

PROJECTS

VQA using Scene Graph Generation *Research Project* — Sep 2020 - Present
- Currently focusing on scene-graph generation and using scene-graph and knowledge-graph to enhance the VQA performance.

Multilingual Decompositional Analysis and Retrieval *PhD Research Project* — Sep 2019 - Present
- IARPA BETTER competition - currently working on document search and ranking based on neural, entity, and external knowledge-based techniques.

Multiple Instance Learning on Nuclei Detection @GitHub *Internship at Kitware* — Feb. 2019 - Jun. 2019
- Implemented an end-to-end generic nuclei detection pipeline in large scale, parallel systems. @Published Blog

Tooth Micro Crack Detection @GitHub *Internship at Kitware* — Sep. 2019 - Present
- Implementing a machine learning pipeline along with signal processing techniques (Wavelet transform & Phase analysis).

WBC Cell Detection and Classification @GitHub *Senior Project Thesis* — Mar. 2018 - Jan. 2019
- Implemented and evaluated an end-to-end pipeline to bounding box detect and classify cancerous white blood cells.

TFSurvivalNet Implementation @GitHub *Internship at Cooper Lab* — Aug. 2017 - Nov. 2017
- Re-implemented Theano based SurvivalNet to TensorFlow-Slim based framework and Dockerized the package.

PUBLICATIONS

- **Chandradevan, R.**, A. A. Aljudi, B. R. Drumheller, N. Kunananthaseelan, M. Amgad, D. A. Gutman, L. A. D. Cooper, and D. L. Jaye. "*Machine-Based Detection and Classification for Bone Marrow Aspirate Differential Counts: Initial Development Focusing on Nonneoplastic Cells.*" Laboratory Investigation (Sep 30 2019).https://www.nature.com/articles/s41374-019-0325-7
- Yousefi Safoora, Amirreza Shaban, Mohamed Amgad, **Ramraj Chandradevan** and Lee AD Cooper. "*Learning Clinical Outcomes from Heterogeneous Genomic Data Sources.*" (2019). Link @URL.
- *Early Experience in Developing a Machine-Learning and Digital Pathology Approach to Automate Bone Marrow Differential Counts.* Oral presentation at ACLPS 2018.