Andrew Marmon

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Education:

Virginia Tech
Bachelor of Science in Computer Science

August 2013 - December 2017

Georgia Institute of Technology
Master of Science in Computer Science & Machine Learning

August 2020 - December 2021

Skills:

Languages: Python, Swift, Java, Bash
Tools: PyTorch, Tensorflow, Swift for Tensorflow, Spark, Google Cloud, AWS
Coursework: Deep Learning, Computer Vision, Mobile Manipulation, Artificial Intelligence, Computer Vision Research

Professional Experience:

The United Nations   **New York, NY**
Research Engineer Intern   *May* 2021 – Present
- Working within the United Nations Emerging Technology Lab to deliver AI solutions across multiple domains in the Secretariat
- Collaborating with UNITAC and Relational AI to create a simulation environment using probabilistic knowledge graphs that will surface risks and recommend policies to cities to mitigate the effects of climate change, earthquakes, wildfires, etc. depending on the city-specific environment

The Borg Lab at Georgia Tech   **Atlanta, GA**
Computer Vision Researcher   December 2020 – Present
- Combining deep learning with factor graphs to improve the state-of-the-art in object tracking under Dr. Frank Dellaert
- Contributed to TensorFlow in a collaboration with Google Research to implement the Big Transfer (BiT) model into the Swift for TensorFlow model garden

Marcus Center for Therapeutic Cell Characterization and Manufacturing   **Atlanta, GA**
Graduate Research Assistant   August 2020 – Present
- Identifying the attributes that can indicate the quality and quantity of cells that will be produced by the cell manufacturing process using machine learning
- Engaged with a multi-disciplinary team of biomedical engineers, biologists, and machine learning researchers to apply this pipeline to the osteo-arthritis domain with new clinical data

Slalom Consulting   **Atlanta, GA**
Machine Learning Engineer   August 2018 – August 2020
- Collaborated with the United Nations Analytics and Emerging Technologies team to design a solution that matches donations from a billion-dollar fund to strategic initiatives (women and girls, education in crisis, protection, etc.) using an open source knowledge graph ConceptNet and natural language processing
- Partnered with the head of epidemiology at an Ivy League Medical Center to determine if there is information in noncancerous breast tissue mammograms that is related to whether that patient develops cancer using computer vision
- Optimized the pipeline Slalom developed to encode and cluster American Cancer Society's Cancer Prevention Study II histopathology slide images for open source use in research
- Detected and prevented account takeover and fraud for a major hotel conglomerate, optimized the supply chain for a trucking company, and improved the retail customer experience for an IoT company

The Home Depot   **Atlanta, GA**
Software Engineer   February 2018 – August 2018
- Incorporated a new payment method into Home Depot's primary in-store selling application to expedite the purchasing process
- Collaborated with multiple teams to solve cross-project issues including data migration, continuous integration and continuous deployment, and monitoring and alerting to help maintain high availability

Publications:

Pradhan, Pallab & Chatterjee, P. & Stevens, Hazel & Marmon, A. & Medrano-Trochez, C. & Jimenez, A. & Kippner, L. & Li, Y. & Savage, E. & Gaul, D. & Fernández, F. & Gibson, G. & Kurtzberg, J. & Kotanchek, T. & Yeago, C. & Roy, K.. (2021). Multiomic analysis and computational modeling to identify critical quality attributes for immunomodulatory potency of mesenchymal stromal cells. Cytotherapy. 23. S24. 10.1016/S1465324921002826