Darasy Reth

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Summary

Computer systems engineering - IoT graduate student and experienced software developer with an understanding of general software development, algorithms, machine learning, and artificial intelligence. Experienced and skilled at working in a team, highly responsible and hard working. Interested in a software development position utilizing Python, C, Java, and R as well as applying data science and machine learning knowledge.

Technical skills

Programming languages:	Python, Java, C, C++, R, SML
Operating systems:	Linux, Macintosh, Windows 7/8/10
Web technologies:	JavaScript, HTML, CSS
Database:	MySQL

Education

Northeastern University, Boston, MA
Master of Science in Computer Systems Engineering - IoT Expected December 2020
Relevant courses: Data Science Engineering Method and Tools, Concepts of Object-Oriented Design

State University of New York at Buffalo, Buffalo, NY
Bachelor of Science in Computer Science December 2018
Bachelor of Arts in Mathematics
Relevant courses: Machine Learning, Artificial Intelligence, Algorithm Design and Analysis, Software Engineering

- Dean's List.
- Tau Sigma National Honor Society.
- Undergraduate research assistant at the Embedded Sensing and Computing (ESC) lab.
- Undergraduate student under experimental learning program at Curbell Medical.

Experience

Experiential Learning Project, Curbell Medical, Buffalo, NY August 2018 – December 2018
Software Developer and Researcher
Project: “Characterizing Human Movement Using a Wearable Device”

- Designed machine learning models to analyze unusual patient’s movements using K-Nearest Neighbors, Random Forest, and Convolutional Neural Networks.
- Collected patient’s movements dataset using Arduino to feed to the models.

Embedded Sensing and Computing Lab, Buffalo, NY May 2018 – December 2018
Undergraduate Research Assistant
Lead Software Developer and Researcher
Project: “A Deep Learning Fall Detection Method in Elderly Home Exercise Programs”

- Built a tool to extract human body key points from video surveillance using a deep learning approach.
- Designed a deep learning model to identify and to distinguish fall motion from other human activities.

Software Developer and Researcher
Project: “BigFoot: A Mobile Solution toward Foot Parameters Extraction”

- Utilized computer vision technology to analyze human foot key points using OpenCV library.
- Designed algorithms to determine the foot shape of a person using Euclidean distance, circle, and ellipse circumference.

Academic Projects, State University of New York at Buffalo, Buffalo, NY
Spectacle Detection August 2017 - December 2017

- Built Hidden Markov Model and Artificial Neural Network classifiers to identify if people wear glasses.