Bryon Kucharski

11 Quarry Circle, East Haven, CT | (203) 988 - 5897 | bryonkucharski.github.io | bryonkucharski@gmail.com

Education

Master of Science in Computer Science, *University of Massachusetts Amherst*, Exp. May 2020 GPA: 3.78/4.00
Bachelor of Science in Computer Engineering, *Wentworth Institute of Technology*, 2018 GPA: 3.84/4.00

Research Experience

MS Project, UMass Amherst, Advisers: Dr. Marc-Alexandre Côté and Trapit Bansal Fall 2019 - Spring 2020
- Leveraging Knowledge Graphs in Text-Based Reinforcement Learning

Information Fusion Laboratory, UMass Amherst, Adviser: Dr. Madalina Fiterau Spring 2019
- Deep Learning Methods for Multivariate Time-Series Data

Research Assistant Co-op, Wentworth, Advisers: Dr. Aaron Carpenter, Dr. Mehmet Ergezer Fall 2017
- Developed new AI course for embedded devices and a VR based electrical engineering laboratory

Publications

2019 *Multi-resolution Attention with Signal Splitting for Multivariate Time Series Classification.* **Bryon Kucharski**, Rheeya Uppaal, Bhanu Singh, Iman Deznabi and Madalina Fiterau. ICML Time Series Workshop.

2019 *Machine Learning Based Heuristic Search Algorithms to Solve Birds of a Feather Card Game.* **Bryon Kucharski**, Azad Deihim, and Mehmet Ergezer. EAAI19.

2018 *Real-World Projectile Catching with Reinforcement Learning: Empirical Analysis using Discretized Simulations.* **Bryon Kucharski**, Adam Ziel, Michael Hickey, and Collin Travers. MIT URTC.

2018 *Designing laboratory work for a novel embedded AI course.* **Bryon Kucharski**, Aaron Carpenter, and Mehmet Ergezer. ASEE National Conference.

2018 *Is a Virtual Reality Based Laboratory Experience a Viable Alternative to the Real Thing?* Mohammed Almaghrabi, **Bryon Kucharski**, and James McCusker. ASEE National Conference.

2018 *The Undergraduate Perspective: How to Survive an Undergraduate Engineering Program.* **Bryon Kucharski**, Aaron Carpenter, Mehmet Ergezer, and Joan Giblin. ASEE National Conference.

2018 *Integration of Universal Robot into Performance Verification (PV) Test Process.* Jianrong Chen, Everett Parhiala, Mike Herzog, and **Bryon Kucharski**. Teradyne User Group (TUG) Conference.

Industry Experience

Intern, Human-Autonomy Interaction Laboratory, Sonalysts, Waterford, CT Summer 2019
- Researched machine learning and ensemble methods for authorship attribution for use in DoD contracts
- Formulated the pipeline and collected/cleaned datasets for time series forecasting of satellite signal strength based on terrestrial and space weather

Test Development Engineering Co-op, Teradyne, North Reading, MA 2017 Full Time, 2018 Part Time
- Developed a C# and C++ API and a GUI for controlling and a Universal Robots robotic arm
- Enhanced a statistical process control (SPC) tool by reducing the time to create plots

Electrical Engineering Intern, Gerber Technology, Tolland, CT Summer 2016
- Renovated an existing circuit board test fixture by reconstructing cable sets and enhancing test software
- Implemented two Google Apps Script ticketing systems to manage deviations in the manufacturing process

Languages and Tools

Python, PyTorch, numpy, pandas, scikit, C#, C++, Unity

Awards, Activities, and Outreach

2018 President's Award for Computer Engineering
2018 EAAI18 Panel on Nontraditional Research Experiences
2018 AAAI18 Student Outreach Workshop
2018 IEEE Eta Kappa Nu (IEEE-HKN)
2014-2018 **Senior Captain**, Wentworth Institute of Technology Baseball
2014-2018 Dean's List