Jack Kenney

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Researcher and Developer
Machine Learning

Titles and Distinctions

- **Machine Learning Consultant**, Lam Research Corporation (since 2018).
- **Neural Network Researcher**, Biologically Inspired Neural and Dynamical Systems Laboratory, College of Information and Computer Science, University of Massachusetts at Amherst (since 2017).
- **Mobile Application Developer**, UMass Disability Services, Amherst, MA (since 2017).
- **Software Development Intern**, Optum, Inc., Boston, MA, (2017).
- **Software Development Intern**, iMedia Solutions, LLC., Dartmouth, MA (2014-2015).

Academic Studies and Diplomas

2015–2019 **B.Sc. in computer science**, *with Honors*, GPA 3.91/4.00, Commonwealth Honors College, College of Information and Computer Sciences, University of Massachusetts at Amherst.

2011–2015 **High school**, *4th in class with Distinction*, GPA 3.99/4.33, Dartmouth High School

Research Areas

- Neural network optimization algorithms
  - Non-convex loss functions
  - Epi-genetic evolutionary optimization
- Process results prediction from time-series data
  - Domain knowledge-based summarization techinques: functional fits, statistical analysis
  - Data expansion techniques: distribution calculation and sampling, noise introduction
- Recurrent neural network architectures
  - Reservoir computers and echo state networks

Public Projects

- Bamboo – github.com/jackkenney/bamboo
  - A library of functions to manipulate pandas dataframes in python.
- Reservoir Computer – github.com/jackkenney/reservoir-computer
  - An implementation of an echo state network reservoir computer to synthesize sine waves given frequency and duration.