

# Jack Kenney

College of Information and Computer Sciences,  
University of Massachusetts at Amherst

—  
Phone: 508-971-8461  
jkenney@umass.edu  
www.jack-kenney.com

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>B.Sc. in computer science</b> , <i>with Honors</i> , GPA 3.91/4.00, Commonwealth Honors College, College of Information and Computer Sciences, University of Massachusetts at Amherst.
2011–2015	<b>High school</b> , <i>4th in class with Distinction</i> , 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 techniques: 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](https://github.com/jackkenney/bamboo)
  - A library of functions to manipulate pandas dataframes in python.
- Reservoir Computer – [github.com/jackkenney/reservoir-computer](https://github.com/jackkenney/reservoir-computer)
  - An implementation of an echo state network reservoir computer to synthesize sine waves given frequency and duration.