JACK KENNEY

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SUMMARY

A natural problem-solver, passionate about optimization and automation, driven better people's lives. Seeking to leverage data science to impact company direction and increase value.

SKILLS

Theory	Machine Learning, Applied Linear Algebra, Statistics, Algorithms, Data Structures
Technical	Python, JavaScript, Java, Scala, C, SQL, Testing, Debugging, git
Business	Agile, Teamwork, Leadership, Teaching, Public Speaking
Arts	Sculpture, Theater, Bass, Guitar, Piano

WORK EXPERIENCE

Research Assistant – Biologically Inspired Neural and Dynamical Systems Laboratory

Laboratory at the College of Information and Computer Sciences created to advance research in biologically-inspired computing and computational methods.   October 2017 – Present

- Developing machine learning models for regressing silicon wafer etch measurements with Lam Research Corporation, with preliminary accuracy of 96%.

- Used reservoir computers to generate sine waves of given frequency and duration as machine learning benchmark test, with 98% accuracy.

Mobile Application Developer – UMass Disability Services   October 2017 – Present

- Creating accessible application to guide students around campuses using crowd-sourcing model and ArcGIS mapping. Cross platform development done with ReactNative.

Software Development Intern – Optum, Inc.   June 2017 – August 2017

Optum utilizes a massive amount of healthcare data to make insurance decisions and to identify areas where healthcare resources and initiatives would be most impactful.

- Initiated and developed an internal research document catalog and repository server. The system was successfully passed to a search team to incorporate into their data pipeline.

- Created visualizations to internally monitor CA-Agile (Rally) data using Domo, meeting with executives and presenting to corporate leaders to guide decision making for teams.

Web Application Intern – iMedia Solutions, LLC   September 2014 – May 2015

Using open-standard software solutions, iMedia creates web-applications, manages servers and networks, and develops customer-specific software and hardware.

- Developed web applications using open-standard web frameworks such as Node.js Linux server stacks with MySQL databases and socket middleware. Developed Wordpress LAMP stacks.

PUBLIC PROJECTS

Bamboo *python, pandas, scipy, sklearn*   github.com/jackkenney/bamboo

Open source library of functions to manipulate pandas DataFrames for machine learning pipelines. Includes many categories of functions from simple string operations not available in basic python up to advanced curve-fitting functions on datasets using Sci-Py. Open for extension or deployment.

Reservoir Computers *python, numpy, networkx*   github.com/jackkenney/reservoir-computer

Implementation of a reservoir computer with a novel small-world graph, echo state network architecture and leaky-integrate-and-fire neurons for the machine learning task of sine wave synthesis given frequency and duration as static input. Resulted in high accuracy regression with minimal network size and training time.

EDUCATION

University of Massachusetts at Amherst   Sept 2015 – May 2019

B.Sc. College of Information and Computer Sciences, Commonwealth Honors College   *GPA: 3.906*

Concentrating on artificial intelligence and machine learning. Completing an honors thesis on a data science project summarizing and normalizing data, and building and optimizing regression estimators.

- Dean's List   University of Massachusetts, Amherst
- Dean's Award   University of Massachusetts, Amherst, April 2015
- AP Scholar with Distinction Award   College Board, May 2015