

ROY JACKMAN

jackman.roy@gmail.com · github/royJackman · /in/roy-jackman

EDUCATION

University of Massachusetts at Amherst

M.S. Computer Science (Artificial Intelligence)

August 2020

B.S. Computer Science (Artificial Intelligence), B.S. Mathematics (Applied Mathematics)

May 2018

Minor in Linguistics, Multidisciplinary Honors

WORK EXPERIENCE

Full Stack Software Developer

June 2019 – June 2020

Applause App Quality

Framingham, MA

- Developed and deployed features, patches, and migrations for multi-tier apps.
- Worked on a team to plan, program, and review code deployed to thousands of users.
- Implemented requested features in Angular, TypeScript, Ruby, SQL, and Java.

Research Assistant

December 2016 – June 2019

Biologically Inspired Neural and Dynamical Systems Laboratory

Amherst, MA

- Performed research in biologically-inspired computing and computational methods.
- Built, tested, and improved machine learning models, biological computing methods, data visualization tools, and application testing pipelines.
- Presented weekly and bi-weekly talks about current and relevant research to lab group.

Software Developer Intern

May 2018 – August 2018

Twist Bioscience

Tel Aviv, Israel

- Built and deployed APIs for auto-mailing, multi-stack variable updating, and pipeline integration.
- Coordinated updates in Docker with Kubernetes variables through a custom web API.
- Created a documentation generator using JavaScript, Swagger API, and Ruby on Rails.

Research Assistant

May 2017 – August 2017

Plant Lipid Biotechnology Lab - Ben Gurion University

Be'er Sheva, Israel

- Worked with low-res NMR data and performing analysis using PDCO in Matlab on plant lipids for use in the food, pharmaceutical, cosmetics and bio-energy industries.
- Proved correlation between T_1, T_2 spin interactions and various characteristics of a substance.
- Published a paper on the findings: Energy Fuels 32, 4, 5090-5102.

Software Developer

June 2016 – August 2016

Variantyx

Framingham, MA

- Contributed to development of a platform for genomic-based disease testing and diagnosis.
- Helped design and write automation and calculation APIs.
- Project: Pedigree svg image generator

RESEARCH

Neuron: a neural programming language

M.S. Candidate Thesis

Developing a programming language with logical neural structures as engines, specifically reservoir computing for neural processing, including language parsing.

Sine Circle Mappings in Machine Learning

Multidisciplinary Honors Undergraduate Thesis

Performed complex computation with pseudo-chaotic, self-contained cells built into circuits. Increased accuracy of reservoir computation method.

PUBLICATION

Z. Wiesman, C. Linder, M. T. Resende, N. Ayalon, O. Levi, O. D. Bernardinelli, L. A. Colnago, C. I. N. Mitre, and R. Jackman, "2D and 3D Spectrum Graphics of the Chemical-Morphological Domains of Complex Biomass by Low Field Proton NMR Energy Relaxation Signal Analysis" in Energy Fuels 32, 4, 5090-5102, 2018.

SKILLS

Technical	Python, C/C++/C#, Java, {Java Type}script, Rust, Ruby, Matlab, R, Lua, Go, Flask, Angular, React, PyTorch, Tensorflow, Keras, OpenCV, ROS, .NET, Xamarin, AWS {My Postgre No}SQL, Kubernetes, Docker, Bitbucket/Github, Blender, Unity, Godot
Theory	Machine Learning, Neural Learning, Genetic Algorithms, Semisupervised learning
Business	Agile, Teamwork, Leadership, Teaching, Public Speaking
Languages	English (Fluent), Hebrew (Fluent), French (Intermediate)