

Julian Oks

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EDUCATION

Masters, Computer Science, UMass Amherst

January 2019 - May 2020

Bay State Fellowship (highest award)

Selected Courses: 611: Advanced Algorithms, 589: Machine Learning,

Teaching Assistant for: 248: Intro to Data Science

B.A., Artificial Intelligence, Hampshire College

September 2015 - December 2018(graduated early)

Concentration GPA: 3.95, Overall GPA: 3.81

Selected Courses: 682 Neural Networks, 590V Data Visualization & Exploration,

683 Artificial Intelligence, 590S Systems for Data Science

Teaching Assistant for: 263 Artificial Intelligence, 254 Genetic Programming

SKILLS

- Big Data Systems - Spark, Hadoop/MapReduce, Giraph/Pregel, DBMSs, ...
- Neural Networks - TensorFlow, PyTorch, NumPy, custom, ...
- Visualization - D3, dc.js, Jupyter Notebooks, Bokeh, Interactive SVG, Crossfilter, ...
- Programming Languages - Flexible, but favors JavaScript ES6, Python, Clojure, ...
- Communication - Writing, Public Speaking, Collaboration, ...
- Adjectives - User-Friendly, Performant, Fault-Tolerant, Expressive, Flexible, Buggy, ...

EMPLOYMENT

❑ Lead Instructor, All Star Code

Summer 2018, New York, New York

Lead instructor for a class of 20 students and 4 TAs. The class was part of a nonprofit organization whose mission is to close the racial wealth gap by teaching technical and soft skills to young men of color. My primary responsibilities were giving lectures and developing curriculum.

❑ Intern, IBM Watson

Summer 2017, Durham, North Carolina

Developed knowledge discovery tooling for the purpose of creating, visualizing, and editing ontologies. It used intelligent disambiguation techniques, a custom ontology representation tailored for visualization and editing, and intelligent querying abilities. To accomplish this, machine learning models were made both from and for these ontologies.

❑ Research Assistant, Creative Machines Lab, Columbia University

2016-2017, Columbia University, New York, New York

See “Academic Lab Experience” section.

ACADEMIC LAB EXPERIENCE

- ❑ VAIL (Visualization with Artificial Intelligence Laboratory)
2017-2018, Amherst, Massachusetts
Founding member of the VAIL lab, where we used Artificial Intelligence to make better visualizations, and visualizations to make better Artificial Intelligence systems. I worked on optimization of visualizations, developing visualizations that explain the behavior of Neural Networks, and integrating machine learning with ontologies.
- ❑ Creative Machines Lab, Columbia University
2016-2017, Columbia University, New York, New York
Software and machine learning lead on the Spyndra project, a quadruped robot. Worked on topology optimization problems like 3D reconstruction and automatic design of electrodes. I developed systems that derive self-models of machines, creating both explicit structural models as well as implicit inferential neural network models. I advised groups on where and how to implement machine learning into their projects.
- ❑ Hampshire College Computational Intelligence Laboratory
2015-2017, Amherst, Massachusetts
Worked on Genetic Algorithms and Genetic Programming. My research focused mainly on genetic representations of Neural Networks and physical robots, for the use of Neural Architecture Search and Robot Self-Modeling.

REFERENCES available upon request