JULIAN A. STANLEY

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EDUCATION

Northeastern University, Boston, MA
Master of Science in Bioinformatics — May 2020
Bachelor of Science in Biology **GPA 3.92/4.0** — June 2019
• Over $20,000 in direct research funding • University Scholars Program (highest merit scholarship)

EXPERIENCE

Harvard Medical School, Boston, MA — June-August 2018
Research Intern, Department of Systems Biology

- Uncovered genetic delineators of endometrial cancer subtypes by analyzing whole-genome array data
- Thoughtfully applied segmentation and unsupervised clustering algorithms using Python, R, and MATLAB

Cygnal Therapeutics, Cambridge, MA
Research Associate, Immunology Target Development — July 2017-July 2018

- Analyzed and visualized RNAseq and microarray data in Python and R to identify potential therapeutic targets
- Accelerated targets by culturing immune cells and quantifying cytokine and RNA expression
- Conducted interdisciplinary projects that resulted in co-authorship of 14 submitted patent applications

Northeastern University, Boston, MA
Undergraduate Research Associate, Apfeld Lab, College of Science — October 2015-present

- Employ ImageJ and MATLAB to analyze *C. elegans* tissue-specific oxidation data of over 2000 samples
- Collaborate with a 5-person team to validate and maintain a platform to automatically record *C. elegans* survival
- Investigate role of C. elegans TGFβ signaling in organismal lifespan and oxidant resistance
- Perform and build tools for a comprehensive sensitivity analysis of ratiometric redox-sensitive GFPs

TECHNICAL SKILLS

- Scripting in Python, Perl, R, and MATLAB, including R Bioconductor and Python Pandas
- Bash scripting, Unix command line environment, and git version control
- Data visualization and communication through Markdown, Plotly, and Shiny
- Design patterns and object-oriented programming in Java
- High-throughput RNA sequencing and whole-genome SNP array analysis
- Wet-lab experimental design with qPCR, flow cytometry, ELISA, and more

PROJECTS

EdgePy (open source) — July 2018-present

- Collaborate across multiple countries utilizing Slack and Github to contribute to a quickly-growing codebase that aims to create a comprehensive RNAseq analysis package in Python

Cygnal Therapeutics, Cambridge, MA
Legendplex immunoassay analysis pipeline — July – November 2017

- Automated hours of work by creating a Jupyter-based interface for the analysis of high-throughput cytokine data

PUBLICATIONS

- Parra, J., **Stanley, J**., et al. Crafting A More Environmentally Benign Extraction and Analysis of Pharmaceutical Precursors from a Medicinal Plant: A Student-Led Innovation. *Journal of Chemical Education* (under review)