

# LUCAS HENRY

lucashenry.xyz  
lucasalexanderhenry@gmail.com

## EDUCATION

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**University of California, San Diego**  
B.S. in Cognitive Science with a specialization in neuroscience

*Fall 2017 - Spring 2020*

## EXPERTISE

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Python (Jupyter, NumPy, SciPy, Scikit-learn, Matplotlib, Plotly, Pandas.) SQL. Bash.  
Visualizations. Data cleaning. Regressions (data modeling). Experimental design. Server Admin. Signal Processing.

## WORK HISTORY

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**Bioinformatics Software Engineer**  
Fulgent Genetics

*January 2022 - Present*

- Deployed an **interactive Covid-19 dashboard for data discovery and exploration**. Utilized Python (Pandas, Numpy), Mongodb, Javascript, Html and Docker.
- **Develop, test, maintain Bioinformatics Pipelines** with Bioinformatics Scientists, Software Developers and QA engineers. Data management, data maintenance and database administration.
- Identify and implement process improvements: automating manual processes, optimizing data delivery, re-designing infrastructure for greater scalabilities.
- Build analytics tools that utilize the data pipeline to provide actionable insights into customer acquisition, operational efficiency and other key business performance metrics.

**Stem Cell Research Technician**  
Muotri Lab

*August 2020 - January 2022*

- Constructed data pipelines to receive, clean, prep, and summarize data for signal processing analysis using Python, Jupyter, Numpy, Matplotlib, HDF5 and Matlab.
- Built an **exponential decay regression model to study attention metrics in neurons**. Applied model to hours of neuronal data sampled at 12,000Hz. Presented data which uncovered the affects of aging on our neuronal cultures, and jump-started further experiments.
- Worked in collaboration with multiple phd students at any given time, and professors from around the country.
- Managed our tissue culture room. Trained new students in sterile technique and how to care for, and properly use our microscopes, incubators and fume hoods. Repaired and cleaned faulty equipment.

**Research Assistant**  
Voytek Lab for cognitive and computational neuroscience

*June 2019 - June 2020*

- Utilized various electrophysiological techniques to analyze neuronal time series data.
- Converted of our Matlab data pipelines into Python.

**Research Assistant**  
Douglas Nitz Systems Neuroscience Lab

*March 2018 - June 2018*

- Supported experiments studying electrical phenomenon of the CA1 region of hippocampal place cells.
- Cared for and trained rodents to run specialized routes on custom mazes.

**Beekeeper**  
Mill Valley Bees

*April 2011 - June 2016*