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Alec Schwartz

NIH Postbac IRTA Fellow

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SKILLS

Tools and Languages	Python, Git, Markdown
Quantitative Research	Jupyter Notebook, Pandas, R
Familiar with	SQL, Flask, HTML/CSS, Docker, Julia, C
Communication	English

EXPERIENCE

Post-baccalaureate Intramural Research Training Award Fellow 10 2020 — Present
National Institutes of Health, NIDDK, [Mathematical Biology Division](#) Bethesda, MD

- Helped develop [code](#) for computationally modeling COVID-19.
- Worked on a machine learning project using spiking neural network architecture to investigate if extensive synaptic pruning resulted in a network structure uniquely associated with the trained task.

Scientific Collaborator 07 2020 — 11 2020
Dickinson College, Department of Biology Carlisle, PA

- Helped build a preliminary custom object detection [platform](#) for Dickinson College Professor Scott Boback to detect rattlesnakes in his lab's wildlife camera data.
- Used Python, ImageAI, and the object detection algorithm YOLOv3 to create a custom object detection model.
- Trained research students on how to create model training data from thousands of images to improve model performance.

Senior Research Associate / Biology Department 10 2016 — 06 2019
The RNA Medicines Company Bedford, MA

- The RNA Medicines Company was a subsidiary of Beryllium Discovery (2014-2017) and subsequently a subsidiary of UCB Pharmaceuticals (2017 - 2019). It was focused on building a proprietary small molecule drug discovery platform for targeting small non-coding RNAs.
- Helped develop and support a high throughput small molecule screening campaign.
- Maintained in mammalian cell cultures; engineered stable cell lines; ran in vitro functional cell-based assays; performed biochemical and phenotype characterization; handled data analysis for all of my experiments.
- Helped lead lab space build-outs and managed outside contractors to develop regulatory compliance programs, liquid nitrogen and CO2 deliveries, bio-hazard waste removal, and lab coat services.

EDUCATION

Bachelor of Science in Biochemistry and Molecular Biology , <i>Dickinson College</i>	05 2016
SQL for Data Science , <i>Coursera</i>	01 2022
Docker Essentials and Building a Containerized Web Application , <i>Coursera</i>	09 2021
Using Databases with Python , <i>Coursera</i>	07 2019
Using Python to Access Web Data , <i>Coursera</i>	07 2019
Python Data Structures , <i>Coursera</i>	06 2019