(650) 295-9281
San Francisco, CA
abhineetram.phd@gmail.com

Abhineet Ram, Ph.D.

Scientist/Researcher

arram-phd.github.io/portfolio
github.com/arram-phd
linkedin.com/in/abhineet-ram

Skills

Tools and Languages	**Python**, MATLAB, Git, ImageJ, R, Command-Line/Linux, Screener, SQL, SnapGene LaTeX
Quantitative Research	Data Analysis, **Image Processing**, Bioinformatics, Machine Learning, Statistics, Modeling
Wet Lab	Fluorescence Microscopy, Cell Culture, Multiplex Immunofluorescence, In-situ hybridization, CRISPR
Professional	Experimental Design, Teaching, **Communication**, Training, Leadership, Presentation

Professional Experience

Scientific Account Manager — **June 2024 – present**
Genedata — *San Francisco, CA*

- Provided data analysis support and consulting for high throughput screening groups at 5 top 25 pharmaceutical companies.
- Utilized AI/machine learning based work flows to facilitate image data and surface plasmon resonance analysis.
- Developed, maintained, and installed scientific software while supporting 30 researchers in the pharma/biotech industry.

Postdoctoral Researcher — **May 2023 – January 2024**
University of California, Davis — *Davis, CA*

- Collaborated with virologists to develop a plate-based method to quantify viral plaques using microscopy and image analysis.
- Trained/mentored technicians in microscopy and programming resulting in 4 successful graduate school admits.
- Performed analyses of bulk and single-cell RNA sequencing data using DESeq2, identifying metabolic stress regulated genes.

Quantitative Cell Science Intern — **June 2022 – August 2022**
Chan Zuckerberg Biohub — *San Francisco, CA*

- Implemented a Python pipeline for image processing resulting in a tool for spectral unmixing on multi-channel images.
- Developed a spectral model to simulate fluorescence intensities, facilitating quantitative experimental design.
- Configured ANDOR Dragonfly confocal microscope for multi-camera acquisition leading to a 2x increase in throughput.

Graduate Student Researcher — **August 2017 – May 2023**
University of California, Davis — *Davis, CA*

- Studied biomarkers of MAPK signaling using live-cell FRET imaging and multiplexed IF in mono/co-culture cells and organoids.
- Employed **systems biology** to model cell signaling and gene expression leading to a quantitative understanding of MAP Kinases.
- Automated cell segmentation, cell tracking, and intensity quantification using image processing in MATLAB and Python

Education

Doctor of Philosophy: Biochemistry, Molecular, Cellular, & Developmental Biology — *University of California, Davis*
Bachelor of Science: Cell Biology — *University of California, Davis*

Publications (*First author)

1. *Deciphering the history of ERK activity from fixed-cell immunofluorescence measurements — ***Nature Communications*** 2025
2. Spatiotemporal Clusters of ERK Activity Coordinate Cytokine-induced Inflammatory Responses... — ***AJRCMB*** 2024
3. *A Guide to ERK Dynamics, part 1: mechanisms and models. — ***Biochemical Journal*** 2023
4. *A Guide to ERK Dynamics, part 2: downstream decoding. — ***Biochemical Journal*** 2023
5. Live-Cell Sender-Receiver Co-cultures for Quantitative Measurement of Paracrine Signaling... — ***Methods Mol. Biol.*** 2023
6. *ERK signaling dynamics: Lights, camera, transduction. — ***Developmental Cell*** 2022
7. Entosis is induced by ultraviolet radiation. — ***iScience*** 2021
8. Systems-Level Properties of EGFR-RAS-ERK Signaling Amplify Local Signals to Generate Dynamic... — ***Cell Systems*** 2020

Awards

National Institutes of Health: T32 Training Award 2019, IMSD Fellow 2018
Dean's List UC Davis College of Biological Sciences 2013, 2014
BMCDB Graduate Group Fellowship 2017
UC Davis Alumni **Leadership** Award 2012

Extracurricular Activities

Volunteer for Youth Science Outreach 2017 - 2020
UC Davis PREP Admissions Committee 2019
NCAA Division I Track and Field 2012 - 2016
Graduate Group Recruitment Committee 2019, 2020
American Society for Cell Biology Organizing Committee 2020
National record of Fiji, Hammer Throw 2016