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Abhineet Ram, Ph.D.

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Dedicated scientist seeking to transition into data science. My background includes a comprehensive skill set in both wet and dry lab techniques, ranging from high throughput screens to advanced machine learning applications.

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*

- Assisted clients in analysis of SPR and image data using Genedata AI/machine learning based analysis work flows.
- Provided scientific consulting for top 25 bio-pharma companies, completing 20+ support cases.
- Lead client meetings, trainings, and software demos leading to 3 new clients and ongoing leads.

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*

- Researched biomarkers of MAPK signaling using live-cell FRET imaging and multiplexed IF using Nikon Ti2 Eclipse.
- 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.

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)

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

AWARDS

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

EXTRACURRICULAR ACTIVITIES

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