Kian Faizi

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EDUCATION

University of California, San Diego
Aug. 2017 – June 2021

B.S. Molecular Biology, Minor in Mathematics (GPA: 3.76)　　　　　　　　*La Jolla, CA*

- Teaching experience: Instructional Apprentice for Genetic Inquiry, Fall 2020
- Selected coursework: Bioinformatics, Biophysics, Computational Linear Algebra, Gene Regulation, Genome Editing, Modeling, Statistics, Stochastic Processes

International School of Kuala Lumpur
Aug. 2013 – June 2017

I.B. Diploma, Earth Club President, Varsity Basketball Team Captain　　　　*Kuala Lumpur, Malaysia*

EXPERIENCE

Lab Technician
Nov. 2019 – present

Lab of Wolfgang Busch, Salk Institute for Biological Studies　　　　　　　*La Jolla, CA*

- Investigated cost-performance trade-offs in the *Arabidopsis* root system using high-throughput phenotyping and graph-theoretic approaches
- Developed a Python GUI to segment time-series images of roots grown on agar plates; produced and analyzed approximately 1500 images
- Built a pipeline for co-expression network analysis of scRNA-seq data to identify root growth genes, in order to aid crop engineering efforts
- Measured ground-truth angles and radii from 3D point cloud data to aid development of phenotyping software

Volunteer Research Assistant
Nov. 2018 – Nov. 2019

Lab of Patrick Hsu, Salk Institute for Biological Studies　　　　　　　　*La Jolla, CA*

- Created an automated pipeline to search over 20Tb of metagenome sequences for novel orthologs of Cas13d, an RNA-targeting CRISPR effector
- Assisted in conducting a pooled 150,000-guide CRISPR-Cas13d screen in K562s to study gRNA efficiency

POSTERS AND PRESENTATIONS

Co-expression analysis of single-cell RNA-seq data | *Talk*
Oct. 2020

- Presented at the annual HDSI Research Conference

Mining Genomes for RNA-Targeting CRISPR Effectors | *Talk*
Aug. 2019

- Presented at the annual UCSD Summer Research Conference

Metagenomic Discovery of Type VI-D CRISPR Effectors | *Poster*
June 2019

- Presented at the annual UCSD Biology Student Research Showcase

HONORS AND AWARDS

Halicioglu Data Science Institute Scholarship | *$2,500 / UCSD*
Dec. 2019

- Project: *Single-cell transcriptomics and web mining for rapid reverse genetics in plants*, proposed under Dr. Busch

Eureka! Research Scholarship for Biological Sciences | *$5,000 / UCSD*
June 2019

- Project: *Discovery and development of Type VI-D CRISPR effectors for transcriptome engineering applications*, proposed under Dr. Hsu

Provost Honors | *UCSD*
quarterly

First Place Solo Performance | *Sunway National Poetry Slam, Malaysia*
Apr. 2016

SKILLS

Laboratory: Cell/tissue culture, molecular cloning, CRISPR screens, lentiviral transduction, optical microscopy
Languages: Python, bash, JavaScript, HTML/CSS, R, Perl
Organizational: Git, LaTeX, conda, vim, Unix systems
Libraries: BLAST+, pandas, NumPy, ScanPy, matplotlib, NetworkX