

# Iman Hamid

[Imanhamid95@gmail.com](mailto:Imanhamid95@gmail.com) • [imanhamid.github.io](https://github.com/ImanHamid) • [linkedin.com/in/ImanHomid](https://www.linkedin.com/in/ImanHomid)

*Versatile scientist with 9+ years of research experience in population genetics, genomics, bioinformatics, and evolutionary biology.  
Collaborative team player passionate about advancing computational and statistical methods to study genetic variation.*

---

## RELEVANT EXPERIENCE

### **Variant Bio, Seattle, WA**

*Scientist, Population Genetics*

*Variant Bio Standley Fellow & Consultant*

May 2022 – present

May 2021 – Nov 2021

- developed and implemented population and statistical genetic methods to identify associations with clinically relevant traits
- designed and tested approaches for unique population histories and genetic architectures (admixed & founder populations)
- validated associations and variant-to-gene confidence using literature / public databases for drug target prioritization
- communicated results to cross-functional teams and internal/external stakeholders and partners

### **Genetics & Genomics PhD Program, Duke University, Durham, NC**

Aug 2017 – Feb 2022

Dissertation: *Ancestry-based methods for characterizing the evolutionary history of admixed populations.*

- developed novel applications of machine learning and computer vision methods to localize adaptive genetic variants
- conceived and implemented new summary statistics to characterize evolutionary history in admixed populations
- integrated genetic ancestry information and genomic simulations to detect adaptation in populations with mixed ancestry

### **NASA Ames Research Center, Mountain View, CA**

Jun 2016 - May 2017

*Research Associate*

- analyzed genetic and molecular responses to hypergravity-induced endoplasmic reticulum stress in *Drosophila melanogaster*
- characterized loss of dopaminergic neurons and associated behavioral changes in flies exposed to chronic hypergravity

## EDUCATION

### **Duke University, Durham, NC**

Feb 2022

**Doctor of Philosophy (PhD)**, Genetics & Genomics, additional Certificate in College Teaching

### **UCLA, Los Angeles, CA**

Jun 2016

**Bachelor of Science**, Biology, *Summa cum laude*

## SKILLS

- **Technical:** Computational expertise (Python, R, Unix/Linux systems, HPC, AWS), genetic variant calling pipelines, population simulation software, machine learning (computer vision, random forests, clustering), statistics (Bayesian probability, hypothesis testing, regression analyses), data visualization (Python, R, Adobe Illustrator)
- **Languages:** English (Fluent/native), Arabic (intermediate/conversational), Spanish (basic)
- **Other:** Science communication & outreach, project leadership, teaching, creative writing, grant writing

## LEADERSHIP AND SERVICE

**Employee Resource Group Leader**, Volunteering & Community Impact, *Variant Bio*, Jan 2023-present

**IMPACTS Scholar**, *UNC Morehead Planetarium*, Chapel Hill, NC, 2018-present

- designed and conducted genetics and evolutionary biology classroom and community expo activities

### **Invited speaker**

- Guest lecture in Dr. Sara Mathieson's Bioinformatics Superlab course at Haverford College (May 2021)
- Guest lecture in Dr. Megan Phifer-Rixey's Evolution course at Monmouth University (Nov 2020)
- Club EvMed (<https://tricem.org/education-and-outreach/club-evmed/>) research presentation (Sept 2020)

## HONORS AND AWARDS

**Bass Instructor of Record Fellowship**, Duke University, 2020

- awarded funding to independently design and teach an intermediate human population genetics course in Fall 2021

**Dean's Graduate Fellowship**, Duke University, 2017

## SELECTED PUBLICATIONS

Hamid, I., Korunes, K. L., Schrider, D., & Goldberg, A. (2023). Localizing Post-Admixture Adaptive Variants with Object Detection on Ancestry-Painted Chromosomes. *Molecular Biology and Evolution*, 40, 4. <https://doi.org/10.1093/molbev/msad074>

Hamid, I., Korunes, K. L., Beleza, S., & Goldberg, A. (2021). Rapid adaptation to malaria facilitated by admixture in the human population of Cabo Verde. *eLife*, 10, e63177. <https://doi.org/10.7554/eLife.63177>