Anish Raju

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EDUCATION

University of Arizona, Honors
B.S. BIOINFORMATICS
GPA: *4.0/4.0 | Expected May 2023*

Dean's List With Distinction, Highest Academic Distinction, National Merit Scholar

COURSEWORK

Bioinformatics:
AI In Healthcare & Medicine
Software Development
Genomics Data Analysis (HarvardX)
Bioinformatics Specialization (UC San Diego)
Calculus 3/Differential Equations
Other:
Discrete Math, Statistics
Public Health, Biology, Chemistry, Computer Science, etc.

SKILLS

Computational
Independent
Java • SQL • Spring REST • TensorFlow • PyTorch • Matlab • R • Python

Research
Gene Nomenclature • Genomics • Biostatistics • High-Performance Computing • Network Science • NGS • Machine Learning • Aging & Morbidity

Technical Skills
Databases • Web Services • Gene Annotation • GWAS Association Analysis • Neural Networks • Gene Discovery • High-Throughput Sequencing

WORK EXPERIENCE

TGen, Affiliate of City of Hope | UNDERGRADUATE RESEARCHER
Aug 2019 – Present | Phoenix, AZ
- As a researcher in the Schork Lab, developed bioinformatics tools and performed various advanced bioinformatics analyses to investigate the genetic basis for aging.
- Developed tool to compare interspecies gene lists after alias conversion.
- Also constructed neural networks to classify individuals' age, identify complex gene expression signatures associated with age-related traits, and suggest promising drug candidates.
- Collaborated with researchers and mentors as part of the NIH-funded Longevity Consortium.
- Developed skills in bioinformatics software development, gene discovery, & biostatistics.

Banner Medical Center | RESEARCH ADMIN ASSISTANT
Aug 2019 – Present | Tucson, AZ
- Managed database of patient data for orthopedic clinical trials.
- Helped design and organize clinical studies, including software framework for data collection, validation, and data analysis.
- Developed skills in database management and web services.

Helios Scholars Internship at TGen | PAID RESEARCH INTERN
Jun 2019 – Jul 2019 | Phoenix, AZ
- Implemented new Multivariate Distance Matrix Regression algorithm to analyze GWAS studies for different traits' association with aging and identify novel gene SNPs with strong associations.
- Attended various scientific workshops and seminars.

BIO5 Institute at University of Arizona | WANG LAB
May 2018 - Aug 2018 | Tucson, AZ
- Conducted research on using proteomics and molecular dynamics simulations to investigate the 2A protease and develop novel potent broad-spectrum antiviral drugs for enteroviruses.

KEYS Research Internship | RESEARCH INTERN
Apr 2018 - Jul 2018 | Tucson, AZ
- Worked alongside UofA faculty to learn advanced research techniques.
- Also developed skills in physiology, genetics, and biochemistry.

St. Joseph's Medical Center & MIHS | TEEN VOLUNTEER
May 2017 - July 2017 | Phoenix, AZ
- Transported and discharged patients across hospital.
- Interacted with variety of patients on information-sensitive basis.

AWARDS AND HONORS

2017	International Intel Science and Engineering Fair (ISEF) Finalist
2019	Dean's Exemplary Award
2018	AZBio Awards State Conference Student Presenter
2018	National Chemistry Olympiad Finalist
2016	Broadcom MASTERS National Semifinalist
2016	US Air Force Award, Naval Science Award, and 1st Place in Arizona Science Fair (AzSEF)