Aarya Venkat

aarya@uga.edu | 678-404-1666

EDUCATION

UNIVERSITY OF GEORGIA
PhD Biochemistry

UC, SAN DIEGO
MS Chemistry
June 2017 | GPA: 3.8

LINKS

ResearchGate:// **Aarya_Venkat**
LinkedIn:// **AaryaVenkat**
Github:// **HelloAarya**

ACCOMPLISHMENTS

• Won the Outstanding Graduate Teaching Assistant Award

• Published the feature article in a Teaching Magazine

• Delivered a General Chemistry lecture to 400 students at UC, San Diego

SKILLS

PROGRAMMING
Java • Python • LaTeX• GIT • Unix • Bash

BIOINFORMATICS
Cytoscape App Development • BLAST • FASTA • Algorithms • Quantitative Structure-Activity Relationship • Principal Component Analysis • RMSD analysis • ANOVA • Regression • Time-series analysis • K-Means Clustering

COMPUTATIONAL CHEMISTRY
Molecular Dynamics
AmberTools15 • NAMD2 (CUDA)
Forcefield Parametrization
Amber14 • GAFF • CHARMM
Computational Tools
Molecular Operating Environment (MOE) • Maestro • Glide • VMD • Antechamber • PyMOL • Chimera • LEaP • Sander • PMEMD-CUDA

MISCELLANEOUS
PCR • ELISA • RNA interference • Western Blot • SDS-PAGE • 3D Printing

EMPLOYMENT HISTORY

KANNAN LAB | Graduate Research Assistant
July 2018 – Present | Athens, GA

- Gaining structural insights for Glycosyltransferases via Molecular Dynamics.

WHEELER LAB | Graduate Research Assistant
Aug 2017 – June 2018 | Athens, GA

- Performing quantum calculations using Gaussian '09 to determine low energy conformers of Urea and Thiourea derivatives.

UNIVERSITY OF GEORGIA | Graduate Teaching Assistant
Aug 2017 – May 2018 | Athens, GA

- Taught three classes a week as a laboratory teaching assistant (1212L).

GILSON LAB | Graduate Research Assistant
Oct 2015 – May 2017 | La Jolla, CA

- Developed PathInsight, a program to model the downstream effects of small binding compounds in a biological pathway.

UC, SAN DIEGO | Graduate Teaching Assistant
Jan 2017 – June 2017 | La Jolla, CA

- Taught three general chemistry lecture classes every week to 90 students.

NATIONAL RESOURCE FOR NETWORK BIOLOGY | Intern
April 2016 – Dec 2016 | San Francisco, CA

PUBLICATIONS

Patents

Venkat, A., Castro, Y. and Manning, T. "Using Computational QSAR Methods to Propose a New Group of Antibiotics for Dental Applications," U.S. Provisional Patent Appl. 62/359,638, July 22, 2016.

Papers

Venkat, A. and Wheeler, S. E. (2018). Tuning the Conformational Behavior of Ureas through Substituent Effects. [In Progress]

Venkat, A. (2017). PathInsight: A Novel Tool for Modeling Biomolecular Pathways. UC San Diego: Chemistry.

Venkat, A., Amerson, A. L., and Bielmyer-Fraser, G. K. (2016) "Influence of Water Hardness on Accumulation and Effects of Silver in the Green Alga, Raphidocelis subcapitata," Georgia Journal of Science: Vol. 74: No. 2, Article 5.

Park, S., Venkat, A., Gopinath, A., and Kang, J. (2015). Quantitative Analysis of the Trends Exhibited by the Three Interdisciplinary Biological Sciences: Biophysics, Bioinformatics, and Systems Biology. Journal of Microbiology & Biology Education, 16(2), 198.