

Kody Anderson

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STATEMENT OF INTEREST

Chemical Engineering student with experience in biomedical applications and scientific computing, looking for an opportunity to apply strong collaboration skills in an academic environment.

EDUCATION

Texas A&M University, College Station, TX M.S. anticipated Fall 2022
• Chemical Engineering Major | Cumulative GPA 3.7
• M.S. Thesis Title: "Practical Considerations of Gibbs Minimization Flash Procedure"

University of Houston, Houston, TX B.S. May 2019
• Chemical Engineering Major | Cumulative GPA 3.7

SELECTED COURSEWORK

<i>Process Controls</i>	<i>C programming</i>	<i>Fluid dynamics</i>
<i>Quantum Mechanics</i>	<i>Numerical Methods</i>	<i>Differential Equations</i>
<i>Analytical Chemistry</i>	<i>Linear Algebra & Matrix Theory</i>	<i>Unit Operations</i>
<i>Transport Phenomena</i>	<i>Statistical Thermodynamics</i>	<i>Organic Chemistry</i>

WORK EXPERIENCE

University of Houston Heart & Kidney Institute, Houston, TX 2017-2018
Research Assistant, PI: Dr. McConnell and Post Doc. student: Dr. Santosh Suryavanshi
• Quantified various signaling molecules to study genetic mutations using ELISA kits and other analytical techniques
• Optimized analytical protocols for use
• Analyzed large data sets to compare treatments

Bryan Research & Engineering, Bryan, TX 2019-present
Development Engineer
• Implement and maintain various molecular equations of state in C++/C# for use in the ProMax® process simulator
• Prototype various thermodynamic models in Python
• Perform thermodynamic model parameter fitting for use in the ProMax® process simulator
• Implement and maintain thermodynamic property estimation using group contribution/ graph theory in C++/VB
• Perform code maintenance/ feature development in 3 distinct codebases of 5,000-10,000+ lines of code using Microsoft Visual Studio and Team Foundation Server
• Write internal scientific documentation using Literate programming tools (Emacs org-babel), along with Linux plotting tools (gnuplot, maxima, matplotlib)

PUBLICATIONS

Suryavanshi, S., S. Jadhav, **K. Anderson**, P. Katsonis, O. Lichtarge, B.K. McConnell. "Abstract 24010: Muscle-Specific A-Kinase Anchoring Protein Polymorphisms Pre-dispose Humans to Cardiovascular Diseases by Affecting cyclic AMP/PKA Signaling." *Circulation* vol.136 (2017). American Heart Association.

Suryavanshi, S., Jadhav, S., **Anderson, K.**, Katsonis, P., Lichtarge, O. and McConnell, B. (2018). Human muscle-specific A-kinase anchoring protein polymorphisms modulate the susceptibility to cardiovascular diseases by altering cAMP/PKA signaling. *American Journal of Physiology-Heart and Circulatory Physiology*, 315(1), pp.H109-H121.

MEMBERSHIPS

American Society of Chemical Engineers 2017
University of Houston Terry Scholars 2015
University of Houston Honors Engineering Program 2015

AWARDS/ACCOMPLISHMENTS

Dean's List, University of Houston 2015-2019
Terry Scholarship, University of Houston 2015 – 2019
NCAA D1 Cross Country and Track, University of Houston 2015-2016
• Recognized by the conference for outstanding academic and athletic accomplishment

SKILLS/ INTERESTS

Computer: Matlab, C, Python, C++, C#, Functional programming, Literate programming, Linux Command Line tools (grep, awk, shell scripts,maxima,gnuplot), VBA, Fortran

Technical: Western blotting, ELISA kits

Languages: English and American Sign Language