

Evan Komp

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Current Position

University of Washington

PhD Student, Chemical Engineering

Cumulative: 3.87

Valleau Lab: Application of machine learning to coupled networks of chemical reactions to alleviate crippling computational costs of ab initio methods

Seattle, Wa.
2019 - Current

Education

Oregon State University

BS. Chemical Engineering

Magna Cum Laude – GPA 3.78

College of Engineering Leadership Academy Graduate

Corvallis, Or.
2015 - 2019

Previous Research Experience

Oregon State University

Undergraduate Researcher, Dr. Kostas Goulas, Dr. Skip Rochefort

Waste plastics to fuel project

- Effectiveness testing of fuel production from plastic pyrolysis reactor
- Designed and built experimental gasification to Fischer-Tropsch system for production of fuel diesel from waste plastics

Corvallis, Or.
2019

Phibro Animal Health

Lab Research Assistant

Aspergillus fumigatus testing

- Data intake and analysis of AF samples
- Aided in the design of feedstock AF mitigation formula for livestock Sheep E. coli project
- Experimental design and execution of proprietary E. coli treatment for sheep feed

Corvallis, Or.
2017 - 2019

Publications

Machine Learning Quantum Reaction Rate Constants

Komp, E. Valleau, S.

J. Phys. Chem. A

<https://doi.org/10.1021/acs.jpca.0c05992>

2020

Teaching Experience

Oregon State University

Teaching Assistant – Process Dynamics & Process Control

Holding recitation and office hours, meeting with students, producing homework solution keys

Corvallis, Or.
2019

University of Washington

Teaching Assistant – Unit Operations II

Understanding and operation of a continuous distillation column, facilitating student understanding, grading, and guiding student reports

Seattle, Wa.
2020

Awards & Fellowships

DIRECT Fellowship

Data Science Intensive Application to Clean Energy Research

Clean Energy Institute, UW
2020 - Current

Finley Academic Achievement Award

Exceptional Academic Performance

Oregon State University
2016 - 2019

Professional Experience

WestRock Paper Co.

Controls and Optimization Engineering Intern

Longview, Wa.
2018 - 2019

Fiber loss investigation:

- Spearheaded process point investigation into inefficiencies in wood fiber use
- Produced predictive model still in use to anticipate high-loss periods and identify failure points
- Identified and characterized potential savings of >\$2M/yr

Computational Skills & Software

Scientific software:

Gaussian, NWChem, PARCview, Aspen +, Aspen HYSYS, STATGRAPHICS

Programming skills:

Python, Machine Learning, Bash, MATLAB

References

Prof. Stéphanie Valleau: University of Washington, Department of Chemical Engineering
3871 Okanogan Lane NE, Seattle, WA 98195, USA

✉: valleau@uw.edu

Prof. Cory Simon: Oregon State University, Department of CBEE
2500 NW Monroe Ave, Corvallis, OR 97331

✉: cory.simon@oregonstate.edu

Alex Graham: Westrock Paper, Optimization and Controls
300 Fibre Way, Longview, WA 98632

✉: alexander.graham@westrock.com

Dr. Shelby Armstrong: Theravance Biopharma

✉: shelbyarmstrong1@gmail.com