

Jacob Schott, Chemical Engineer

A multi-disciplinary engineer interested in pharmaceutical and small-scale engineering work. Seeking a company invested in humanitarian causes and community-focused projects, but willing to be flexible.

Contact Information

 970-875-4948

 jacobmaschott@gmail.com

 [m](#)

 1736 Heritage Circle
Fort Collins, CO, 80526

Software Experience

Solidworks certified

MATLAB

Python

Linux

Orca

Avogadro

References

Ayari Perkins, Project Mentor
M.Sc.Environmental
Engineering
Adelaros@colorado.edu

Dr. Stephen Craig
Prof. of Calculus and Engineering,
CMC, retired
sraig@coloradomtn.edu

Education

Bachelors of Chemical and Biological Engineering **May 2023**
Colorado State University—Fort Collins, CO
Michael J. Smith Scholar (2019-2021)

Associates of Chemistry **May 2019**
Colorado Mountain College—Steamboat Springs, CO

Most Relevant Lab Experience & Coursework

Senior Design: Small-Scale Desalination Plant **AY 2022/2023**
Colorado State University—Fort Collins, CO

- Head of R&D and sustainability for the reverse osmosis portion of a plant designed to desalinate seawater for safe drinking.
- Designed a bay for reverse osmosis membranes following electroflocculation pretreatment.
- Researched existing protocols about the impact of membrane parameters and alternative desalination methods.
- Collaborated on a team of four senior design students under the mentorship of two CSU professors and Camia Ingeneria, an industry partner.
- Communicated methods, results, and research applications to researchers and laymen at CSU's E-Days presentation.

Modern Organic Chemistry Lab **Fall 2020**
Colorado State University—Fort Collins, CO

- Studied and conducted research into various methods of synthesis and decomposition of various organic chemicals.
- Gathered data using titration, spectroscopy, TLC, meltemp, and column chromatography.
- Analyzed data using NMR, HPLC, and IR-spectroscopy.
- Trained in safe usage and disposal of various organic and non-organic compounds in a fume-hood setup.

Chemical and Biological Engineering Lab I & II **AY 2022/2023**
Colorado State University—Fort Collins, CO

- Studied and conducted research into unit operations and biological assay methods.
- Operated, calibrated, and analyzed flash columns, distillation columns, heat exchangers, flow meters, bioreactors, viscometers, and gas diffusion membranes.
- Performed Bradford, Miller, and HPLC assays on E. Coli.

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Personal Interests



Puns



Writing



Programming



Gaming and Game Design



D&D and Tabletop RPGs



Cooking

Thank you for your time and consideration in reviewing my resume.

Please see my accompanying Cover Letter as well (if provided).

Engineering & Construction Experience

Automation Consultant & Researcher
Seasoned Constructors, LLC—Hayden, CO

Aug 2016 - Ongoing

Automation Consultant for Greenhouse Construction

- Consulted with company owner on developing an automated control system for a community-run greenhouse used to demonstrate sustainable farming practices.
- Devised coolant and watering loops for maintenance of greenhouse conditions.
- Planned out sensor system for temperature and humidity to be fed into a PID controller in order to automatically react to shifting atmospheric conditions.
- Programmed and tuned the controller to maintain optimal plant growth conditions.
- Conveyed operational procedures to on-site manager for continued maintenance.

Researcher for Insulation Salt Study

- Worked as R&D into potential salt-based phase change materials for the company to use in the insulation of various buildings.
- Conducted research into the thermal properties of a mixture of sodium sulfate and sodium chloride for usage as insulation/thermal storage.
- Developed an at-home method to generate the ‘seasoned salt’ mixture and allow for crystallization/melting of the mixture for thermal storage.
- Built storage method for the solution within perlite to allow for installation in various buildings.
- Discussed the properties and nature of the research to laymen to drum up interest in the project and its commercial potential.

Additional information about my work experience in various customer service and retail positions available upon request.