

# Glass Elsarboukh

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GitHub/GitLab: glass-ships

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## Summary

Physicist and Software Engineer with 4 years experience enabling science through software. Proficient in scripting in multiple languages, creating containers, managing complex environments, and troubleshooting build/runtime issues. Creative problem solver, team driven.

## Education and Certifications

- Bachelor of Science in Physics,  
*University of Colorado Denver, 2020*
- IBM Data Science  
*edX Professional Certification, 2021*
- Writing in the Sciences  
*Coursera Specialization course, 2021*

## Skills and Languages

- Python, Numpy, Matplotlib
- Git, GitHub/Lab
- Docker
- Linux, Windows
- Bash scripting
- SQL

## Experience

Super Cryogenic Dark Matter Search - Research Assistant (Jan 2018 - Present)

- Built Docker image of analysis environment for cloud deployment
- Test and debug existing programs and programs in development
- Develop and maintain software technical documentation to assist in application maintenance and deployment
- Managed software in Git repositories and CI/CD in GitLab

Diana HEP - Fellowship (Dec 2019 - June 2020)

- Proposed Awkward as new target language for Kaitai Struct Compiler (KSC) to allow scientists with custom data formats to work with more efficient, accessible arrays
- Added source code to Scala-based KSC to implement Awkward target
- Increases resource efficiency up to 10x by allowing nested data storage in jagged arrays of arbitrary types, vs. standard Python dicts

## Projects I'm proud of:

- SuperCDMS Analysis Docker Image:  
<https://gitlab.com/supercdms/Complnfastructure/cdms-jupyterlab>
- Awkward Arrays as a target language for Kaitai Struct:  
<https://osf.io/2sner/>
- Glass Ships as musician:  
<https://soundcloud.com/glass-ships>