GLASS ELSARBOUKH

SCIENTIFIC SOFTWARE ENGINEER

CONTACT

- ✉ contact@glass-ships.com
- ⧉ glass-ships
- ☎ 719.445.9699
- 📍 Denver, CO, USA

SKILLS

- → **Languages**
  - → Python
  - → Bash
  - → JS / TS
  - → SQL

- → **Dev Ops**
  - → Docker
  - → Jenkins CI
  - → DigitalOcean
  - → Google Cloud

- → **Life Cycle**
  - → GitHub/GitLab
  - → ZenHub

EDUCATION

Bachelor of Science in Physics,
University of Colorado Denver, 2020

IBM Data Science ([Credly Badges](#))
edX Professional Certification, 2021

Writing in the Sciences
Stanford University,
Coursera Specialization course, 2021

PROFILE

Scientific Software Engineer with a background in physics, and 5 years experience developing software solutions for scientific collaborations.

EXPERIENCE

**TISLab** | Scientific Software Engineer (2022 - Present)
Develop a variety of projects for the Monarch Initiative, a biomedical informatics group, including:
- ○ [Koza](#) - a data transformation framework in Python
- ○ [LinkML](#) - a linked data modeling language
- ○ [monarch-app](#) - Vue/TS frontend and FastAPI backend for the Monarch Initiative website
- ○ [monarch-py](#) - a Python library for interfacing with the monarch knowledge graph via Solr or SQL queries

SuperCDMS | Research Assistant (2018 - 2022)
Maintained software infrastructure for dark matter data analysis group
- ○ Spearheaded cloud-deployment of data analysis environment using Jupyterhub and a base [Docker image](#)
- ○ Debugged build process for legacy software:
  - ■ Identified core dependencies
  - ■ Converted Python 2 code to Python3
  - ■ Fixed broken/missing C++ import statements
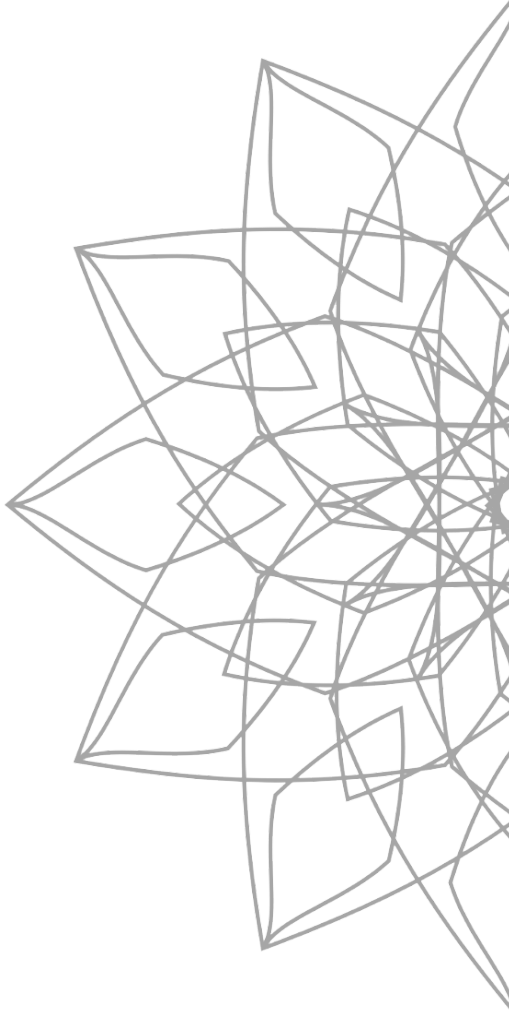
Diana HEP | Diana Fellow (2019 - 2020)
- Initial implementation of Awkward arrays as target language for Kaitai Struct
  - [Awkward Arrays](#) allow for storing data into nested, jagged arrays of arbitrary types
  - [Kaitai Struct](#) generates code for interfacing with custom binary data, based on a YAML-like description of that data format
- Combining Awkward and Kaitai will allow scientists with custom data formats to simply describe their data, and end up with highly efficient and accessible Awkward arrays
- Proof of Concept presented to Diana HEP group and published to OSF