GLASS ELSARBOUKH

SCIENTIFIC SOFTWARE ENGINEER

CONTACT

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glass-ships

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Denver, CO, USA

SKILLS

- **Languages**
  - Python
  - Bash
  - HTML/CSS/JS
  - SQL
- **Dev Ops**
  - Docker
  - Jenkins CI
  - DigitalOcean/AWS
  - Kubernetes
- **Life Cycle**
  - Git, GitHub/Lab
  - 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

Physicist and Software Engineer with 5 years experience enabling science through software.
Seeking opportunities that will allow me to develop tools for effective research and to bridge interdisciplinary gaps.

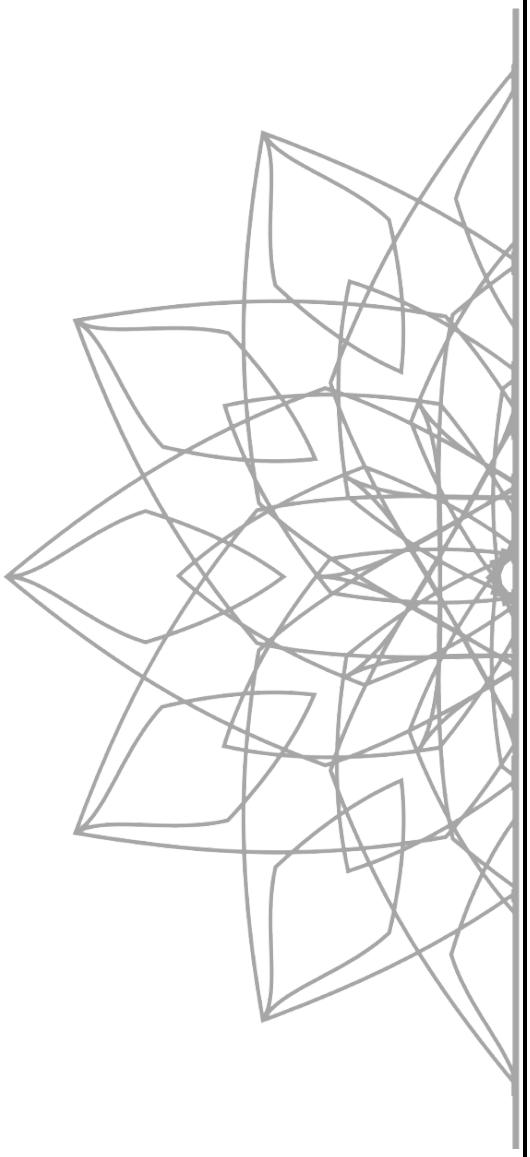
EXPERIENCE

TISLab | Scientific Software Engineer (2022 - Present)

- Maintained Koza - a data transformation Python library
  - Intakes some data, perform user-defined manipulations, and write to a new csv/json file
- Maintained Monarch Ingest - a Monarch Initiative specific set of data ingests
  - First step in pipeline for data served at monarchinitiative.org
- Helped rewrite API for the Monarch Initiative using FastAPI and SOLR queries

SuperCDMS | Research Assistant (2018 - 2022)

- Built Docker image of analysis environment for JupyterHub deployment
  - Allows users to quickly and securely access data analysis environment
  - Eliminated the need to install cumbersome dependencies
- Debugged build process for legacy data processing software
  - Identified core dependencies
  - Converted outdated code from Python2 to Python3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