Tristan Misko

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Summary

Python engineer working on data- and model-adjacent systems: pipelines, automation, and production backends. Experienced with reproducible workflows, deployment, and integrating analytical or ML-oriented logic into reliable software.

Skills

Core	Python; Flask; REST APIs; data structures; algorithmic thinking
ML / AI	PyTorch (basic); scikit-learn; model pipelines; evaluation and experimentation workflows
Data	ETL pipelines; validation/QC; longitudinal datasets; MongoDB (aggregation pipelines)
Engineering	Git; GitHub Actions (CI/CD); Linux; Apache + mod_wsgi; CLI tooling (Click)

Experience

Institute for Research on Labor & Employment (IRLE)   Dec 2023 – Dec 2025
Software & Data Engineer (Contract) — Berkeley, CA (Hybrid)

- Built and maintained Python-based data pipelines and backend services supporting large-scale analytical workflows.
- Designed reproducible ETL processes for longitudinal datasets spanning 66 countries and 20+ years.
- Implemented backend APIs (Flask) and data aggregation logic (MongoDB) to support downstream analysis and experimentation.
- Owned production deployment on Linux (Apache + mod_wsgi), including CI/CD pipelines and operational debugging.
- Developed internal Python tooling (CLI via Click) to automate dataset rebuilds, validation, and maintenance tasks.

Berkeley Research Group (BRG)   Aug 2023 – Jul 2024
Economics & Damages Associate — Emeryville, CA (On-site)

- Wrote Python and Stata scripts to clean, validate, and transform large, messy datasets into analysis-ready form.
- Automated repeatable data-prep workflows to reduce manual effort and improve reliability across analytical pipelines.

Earlier: IRLE Research Data Analyst (Aug 2021 – Aug 2023); IRLE Undergraduate Research Apprentice (Aug 2020 – Aug 2021).

Selected Project

BinderBuilder (Python CLI)   *Feb 2024 – May 2024*

- Built a Python CLI to automate footnote verification and document assembly for expert reports.
- Implemented lightweight NLP techniques (tokenization, inverse-frequency heuristics, rule-based parsing) to extract structured information from Word document XML.
- Designed human-in-the-loop workflows combining automated candidate matching with manual review and PDF rendering.
- Emphasized robustness, traceability, and repeatability over one-off scripting.

Education

University of California, Berkeley   Aug 2018 – May 2022
B.A. Applied Mathematics (Statistics Concentration) | B.A. Economics (Honors)

Leadership

Lindy on Sproul (UC Berkeley) — Event Coordinator (Dec 2019 – May 2022): coordinated weekly events, volunteers, and logistics; taught lessons.