# Kaleb Coberly

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### **Summary**

Backend software engineer, data engineer with a background in research and analysis. Builds and deploys tools, analytics, and pipelines that help others reliably use data. Supports users and developers with documentation, dev tools, issue triage, hands-on training, and debugging. Improves systems with a focus on clarity and maintainability. Prioritizes data quality, reproducibility, validity, and meaningful results.

#### Skills

- Programming & Scripting: Python, R, Bash, SQL, NoSQL.
- *DevOps & Tooling:* Git, Make, Docker, GitHub Actions, Jenkins, CI/CD, Python packaging, debugging, QC and testing frameworks, pytest, pytype, black, flake8, jake.
- Data Engineering: ETL pipelines, RDBMS, database design, data modeling, data cleaning, data validation, methodological implementation, data versioning, MySQL, MariaDB, MongoDB, ElasticSearch, XML, JSON, CSV.
- *ML Engineering:* ML pipelines, feature engineering, performance evaluation, model validation, scikit-learn, caret.
- Analysis & Visualization: EDA, Pandas, NumPy, matplotlib, seaborn, ggplot2, datatable, dplyr, knitr, Jupyter Notebook, RStudio, R Markdown, mermaid, HTML, Excel, Kibana.
- *Documentation & Support:* Sphinx, reStructuredText, user training, contributor onboarding, issue triage.
- *Platforms & Environments:* Linux, MacOS, Windows, HPC (Slurm, UGE), conda, Kubernetes (k8s), Bitbucket/Stash, VS Code, RStudio, JIRA.

## **Experience**

#### Volunteer Software Engineer, Bellingham Food Bank, Nov 2024-Present

- Built and deployed a tool to automate delivery planning, reducing staff workload by several hours with each weekly use. See <a href="mailto:cricketsandcomb.org/#projects">cricketsandcomb.org/#projects</a>.
- Designed modular, CLI-based system integrating into staff workflows; led incremental rollout and training.
- Wrote complete documentation for non-technical users; maintain ongoing support based on user feedback.

- Implemented CI/CD, local + Docker testing, and reusable GitHub Actions workflows with high test coverage.
- Released as an open-source project; maintain infrastructure and lead collaborative development at all skill levels.

#### Research Engineer, IHME - Central Computation (GBD), Nov 2022-Oct 2024

- Developed and maintained internal Python and dev tools for data modeling, versioning, access, and dev workflows.
- Contributed to a large in-house Python ecosystem: features, bugfixes, major test coverage increases, and documentation.
- Maintained Jenkins builds across ~100 packages; debugged issues across DBs, Python APIs/CLIs, Docker, k8s, and HPC.
- Directly supported research teams: Investigated failed model runs, data access issues, and tooling gaps.
- Analyzed system usage and tool performance via ElasticSearch; ran ad-hoc reports and built automated report.

#### Data Analyst, IHME – Pandemics Team, Nov 2021–Dec 2022

- Owned multiple data pipelines for COVID-19 production and reporting; reduced key runtime by 65%.
- Refactored vaccine and booster models for maintainability and extensibility.
- Built diagnostic tools and plots, with automated reporting for data QC; inspected and cleaned data.
- Led early UGE-to-Slurm transition for production jobs.
- Built ETL pipeline in R of national data into standardized, versioned output.
- Produced executive reports for world leaders, running ETL into R Markdown for PDFs; adapted to changing model outputs and feature requests.

#### **Education**

B.S., Database Management and Data Analytics - Western Governors University

B.A., Critical Studies and Pedagogy – The Evergreen State College

#### Certifications

- Quantum Computing (Qiskit & Python) Udemy, Apr 2025
- Mathematics for ML & Data Science DeepLearning.AI, Jan 2025
- Oracle Database SQL Certified Associate Oracle, Jul 2020
- CompTIA A+, Network+, Project+ CompTIA, 2019–2020