

Zachary Higa

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Portfolio: <https://zmbhiga.github.io/>

Objective

Data Analyst with expertise in predictive modeling, SQL, Tableau, and statistical analysis. Experienced in integrating UH Banner and ODS data sources, developing machine learning models, and delivering actionable insights to support decision-making at the University of Hawai'i Community Colleges. Skilled in transforming complex data into clear visualizations and reports to meet institutional, state, and federal requirements.

Education

- **University of Idaho** - Master of Science in Statistical Science, 2024
 - **University of Hawai'i at Mānoa** - Bachelor of Science in Mathematics, 2021
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Work Experience

IT Data Analyst

Office of the Vice President for UH Community Colleges | November 2023 - Present

Projects:

- **Predictive Retention Model to Inform Financial Aid Awarding Strategy** - Developed and validated a random forest model in Python (scikit-learn) using student demographic and financial aid data pulled from UH's ODS via Oracle SQL to inform financial aid awarding strategies across UHCC campuses and maximize student retention from Fall to Spring.
- ***Hawai'i Promise Legislative Reporting*** - Conducted data analysis and built Tableau visualizations in the Hawai'i Promise Legislative Report for [FY2024](#), ensuring accuracy and compliance with state reporting requirements. The report highlighted the impact of the Hawai'i Promise Scholarship on UHCC student success and was cited by the National College Promise organization in [one of their policy briefs](#) (pg. 3).
- ***UHCC Data Dashboards*** - Maintained and enhanced the following Tableau dashboards in the [UHCC data site](#): Credit Courses, Continuing Education, Financial Aid, and Performance Indicators dashboard.
 - Converting Oracle SQL scripts to PostgreSQL for UH's Banner Baseline 9 migration and ODS' transition to Ellucian Insights in October, pulling directly from Banner tables instead of ODS.
 - Continuing Education pulls from two separate UH databases, Destiny and Banner, through a Tableau Cloud flow that I created to incorporate apprenticeship data from our Banner SIS.
 - Developed a financial aid sankey dashboard to track students' pathways from admission and FAFSA submission through financial aid awarding to UHCC enrollment.
 - Developed the new version of the Performance Indicators dashboard to reflect the data around the new UHCC performance funding metrics.

- ***Kapi‘olani Community College Employee Wellness Survey Analysis*** - Designed and deployed a [Tableau dashboard](#) analyzing Kapi‘olani CC’s Fall 2023 employee wellness survey. Transformed raw data into usable formats with Tableau Prep, integrated four data sources, and delivered actionable insights for campus leadership. Customized dashboard visuals using Canva to enhance accessibility and clarity.
 - ***Community College Survey of Student Engagement (CCSSE) Administration*** - Led the administration of the CCSSE survey by coordinating with: campus leads from the seven UHCCs, UH’s LMS, Laulima, IT to incorporate pop-up reminders to fill out the survey, OVPCC’s marketing director to send out email reminders, and OVPCC’s fiscal office to procure student incentives. Automated weekly survey tracking with R, reducing manual workload and ensuring accurate, timely follow-up with campus leads to increase student participation rates.
 - ***UH Board of Regents Chancellor’s Reports*** - Supported Hawai‘i CC, Kapi‘olani CC, and Kaua‘i CC Chancellors in preparing Board of Regents reports. Delivered Tableau visuals and data to support institutional reporting and leadership decision-making.
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Skills Summary

Technical & Programming:

- **Python** - Predictive modeling, regression, classification, scikit-learn, pandas (3 years)
- **SQL (Structured Query Language)** - Oracle SQL, PostgreSQL - query optimization, complex CTEs, subqueries, data integration across Banner & ODS (2 years)
- **Machine Learning** - Random forest, gradient boosting, model validation, deployment (3 years)
- **R** - Statistical analysis and modeling, data visualizations (5 years)

Data Visualization & Reporting:

- **Tableau** - Interactive dashboards, advanced visualizations, performance optimization (2 years)
- **Tableau Prep** - ETL (Extract, Transform, Load) flows for automated data source updates across multiple UH data sources (1 year)
- **Compliance Reporting** - Legislative reporting, UH Board of Regents Presentations (2 years)
- **Data Governance & Standards** - UH data sharing standards, state/federal reporting deadlines (2 years)

Additional Skills:

- **Github** - Version control, collaborative development, and hosting portfolio website via Github Pages (znhiga.github.io) (2 years)
 - **Canva** - Creating visual assets to be included in Tableau dashboards and reports (1 year)
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Relevant Certifications

- **Google Data Analytics Certification** - Coursera, September 2023