

# Murray Keogh

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## SKILLS & TOOLS

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|--------------------------|----------------------|-------------------------|
| • Python                 | • R                  | • SQL                   |
| • pandas   numpy   scipy | • R Shiny            | • Epic EMR              |
| • scikit-learn           | • Tableau            | • SAS                   |
| • Git Version Control    | • Excel              | • Lean Six Sigma        |
| • Machine Learning       | • Data Visualization | • Regression Techniques |
| • Time Series Analysis   | • Survival Analysis  | • Causal Inference      |
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## WORK EXPERIENCE

### UC San Diego Health System

February 2016 - February 2021

#### Business Intelligence Specialist

- Managed the transition of multiple organizational dashboards from Excel to Tableau, saving 60-80 weekly hours for staff.
- Built novel data sources representing patient flow, environmental services, and nurse staffing. The data sources required complex SQL queries and data ingestion from third party staffing software.
- Developed novel Tableau dashboards, including statistical control charts and time series analysis, used by leaders across multiple departments for daily management and process improvement.
- Developed the Covid-19 Capacity Forecast Dashboard used daily by operational leaders to track census and forecast capacity issues.
- Created census forecasting models to aid senior decision makers on the most optimal way to decrease hospital census in response to planned strike of nursing staff.
- Co-designed and implemented a hospital command center in the Patient Flow and Capacity Management department. Results included an hour decrease in bed turnover time and a 5% increase in daily discharges.
- Managed process improvement project to decrease the average length of stay in Bone Marrow Transplant patient population. A new admission process was created, resulting in a length of stay decrease of 1.3 days.

### Verizon Wireless

August 2014 - December 2015

#### Junior Data Scientist

- Supported and improved predictive models used in churn management, leading to industry leading low churn rate.
- Created segmented customer profiles of churned accounts leading to increased customer intelligence and more effective, targeted marketing retention campaigns.

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## EDUCATION

### University of New South Wales, School of Medicine

Master of Science, Health Data Science

Thesis : *Causal Inference Methods to Evaluate Multiple Programs in the Child Protection Service System*

Sydney, NSW

Expected August 2021

### Cornell University, College of Engineering

Bachelor of Science, Operations Research Engineering

Ithaca, NY

May 2014

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## CERTIFICATIONS

Lean Six Sigma Black Belt, UC San Diego Extension

October 2016