

Derek Chapman

Data Scientist

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Education

University of Illinois at Urbana-Champaign (UIUC)

Master of Computer Science in **Data Science** (MCS-DS)

Graduated December 2021 with **GPA of 4.0**

Coursework in: Statistics, Data Mining (Patterns), Text Mining, Deep Learning, Statistical Learning, Computer Vision, Data Visualization

Additional classes through University of Michigan and John Hopkins University in Pandas, Numpy, Data Visualization

Certified Google Apps Administrator

Licensed teacher in Special Education / Social Studies (12 years classroom experience)

Work Experience

Technology Coordinator - *Wahiawa Middle School* - June 2015 to Present

- Increased devices in student hands by 650% in 15 months.
- Created a ticket tracking system that helped reduced wait times by an estimated 90% in 6 months.
- Spearheaded a new email system with voluntary adoption that grew to include 86% of staff within 24 months.
- Setup / sole manager of **950 user** Google Apps **domain**
- Other duties included direct support/repair, purchasing, asset management, and advising the school's leadership.

Special Education Teacher - 2003 to May 2015

- **Head of 32-person** department for 4 years

Recent Projects

Sepsis Prediction Model Creation - Deep Learning for Health Care

- Created a state-of-the-art **LSTM Deep Learning** model to predict Sepsis in ER patients far earlier than standard clinical tools.
- Cleaned / organized MIMIC-III dataset using Numpy, Pandas, and file streaming.
- Liaison between team members in four different time zones. Led team coordination and work integration via Google Colab and GitHub.

Out of Order Book Finder

- Built an autonomous vehicle that incorporated Obstacle Avoidance, **Computer Vision**, and a connection to our AWS instance for front end reporting.
- Used **OpenCV** and **Pytesseract** to find and read labels from book spines.

Predicting Health Inspection Scores

- Created custom algorithms to use large datasets to predict on restaurant hygiene.
- Incorporated: Sentiment Analysis, Doc2Vec, Classification using **Linear Regression** and **Random Forest**, data cleaning, multiple large datasets.

Activities

Presenter/Trainer

- Google Apps, Cyber Security, New Staff Trainings, Education Law/Regulations.
- Created/managed full day camp with a dozen presenters and vendors for entire school staff.