Cody Le —

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EDUCATION

M.S. in Data Science
Concentration in
Computational Methods
November 2022 |
With Distinction |
Jarvis College of
Computing and
Digital Media |
DePaul University
(DPU), Chicago, IL

**B.A. in Asian
American Studies**
September 2009
UC Davis, Davis, CA

**Machine Learning
Specialization** |
Stanford University,
DeepLearning.AI |
Credential ID
78KSKS5B6CXN |
December 2023

**AI Engineering
Certificate** |
International
Business Machines
Corporation |
Expected May 2024

PROJECTS //

Machine Learning Projects —

— Machine Learning Models to Improve Hospital Resource Allocation | DPU, November 2022 | *Python Analysis*
Summary: Individual project exploring classification models to predict a patient's length of stay at a hospital using a dataset from the Analytics Vidhya Healthcare Analytics Hackathon. This analysis extends and responds to an analysis by Jianing Pei et al on the same topic.
- Developed and cross-compared ensemble learning, multi-class, and voting ensemble optimized models in Jupyter Notebooks using Scikit-Learn to improve the accuracy of benchmarked models by transforming the multi-class categorical target and performing a thorough exploratory data analysis.
- Performed extensive preprocessing including data encoding, outlier removal, and feature transformations using Pandas, NumPy, and Seaborn.
- Conducted a grid search cross validation to tune hyperparameters for ensemble models and obtain the best estimator; applied the best models to a voting ensemble for model evaluation.

— Obesity Level Analysis of Adult Populations in Latin America | DPU, November 2021 | *Python Analysis*
Summary: Led a team of two in a project analyzing eating habits and daily physical activity to determine the most salient factors in the classification of adult obesity levels in Mexico, Peru, and Columbia using a synthesized dataset obtained through the University of California, Irvine Machine Learning Repository.
- Performed k-means cluster analysis on key features in Jupyter Notebooks using Scikit-Learn as a data exploration to determine if a pattern existed for different generational age groups or genders.
- Implemented a decision tree feature selection model using Scikit-Learn to determine the top 15% most salient factors predicting obesity levels.

Visualization Projects —

— Spatial Analysis of HIV and COVID-19 Epidemics in California | DPU, November 2022 | *Python Analysis*
Summary: Individual project exploring the spatial relationship between HIV and COVID-19 by analyzing new infection rates for both epidemics and its impact on ethnic and minority groups, using HIV data from AIDsVu, COVID-19 data from the California Department of Public Health Open Database, census tracts, and spatial data from the CDC/ATSDR Social Vulnerability Index.
- Conducted exploratory spatial data analysis, spatial clustering, and outlier detection to determine vulnerable clusters in California in Jupyter Notebooks using GeoPy, GeoPandas, Matplotlib, and Seaborn.
- Generated a Local Spatial Autocorrelation (LISA) interactive map using Folium and Pysal to show significant clusters affected by both infection rates and social vulnerabilities.
- Performed agglomerative cluster analysis to show regions significantly more affected by ethnic and minority status.

— Visualizing the Impact of COVID-19 on Airport Travel in the U.S. and Canada | DPU, March 2022 | *R Analysis*
Summary: Led a team of four to create dynamic visuals to show the impact of COVID-19 on airport travel in the U.S. and Canada using statistical and geographical data curated from Geotab, Inc.
- Prepared weekly outreach and communication to team members, planned and organized weekly meetings, provided feedback and support, and ensured timeliness of submissions for milestones.
- Created ridgeline and violin plots using GGPlot in R Studio with custom color schemes showing the level of airport travel relative to pre-covid periods and the difference between the two countries by month.

RESEARCH EXPERIENCE //

Depaul University, Chicago, Illinois and Hanyang University, Seoul, South Korea

March 2022 — June 2022
Part-Time

Team Lead, Data Science South Korea/US (DSKUS) Global Lab

- Led a team of four with members from two different countries and three different time zones in the inaugural cross-national project between DePaul University and Hanyang University to solve a global policy challenge using data.
- Researched and analyzed the effects of COVID-19 on the global supply chain in the semiconductor and automotive industries using manufacturing, trade, and economic data from various government agencies in the U.S. and South Korea.
- Performed extensive data preprocessing and feature-engineering to join, merge, and combine multiple different datasets obtained from different data sources, formats, languages, and schemas in Python by using Pandas, NumPy, and Seaborn in Google Collab.
- Conducted feature selection models with Scikit-Learn using random forest, recursive SVM, and regular regression to determine salient COVID-19 markers and analyzed the relationship between the supply chain and the pandemic.
- Created presentation slides in Google Slides, developed the storyline and script, and held public speaking practice sessions with the team to ensure clear language for non-technical audiences.
- Communicated with team members regularly through Google Workspace, coordinated and arranged Zoom meetings twice a week, provided feedback and support, followed-up with team members regarding individual tasks, and motivated team members by cultivating positive and open workplace culture.

DATA EXPERIENCE //

Centers for Disease Control and Prevention (CDC) | Atlanta, GA

August 2023 — Present
Full-Time

Data Engineer ORISE Fellow, Public Health Informatics & Analytics Team (PHIAT) National Center for Environmental Health (NCEH) & Agency for Toxic Substance and Disease Registry (ATSDR)

- Loaded, queried, and merged tabular tables and views from various data sources including SQL databases and SharePoint lists in PowerBI to develop dynamic visual dashboards for surveillance and audit of document clearance times, COVID-19-related publications tracking, and enterprise performance lifecycle reporting requirements.
- Executed data transformations and feature-engineering in PowerBI using custom PowerQuery M scripts to develop complex time-based visuals to assist end-users with time-sensitive operational matters.
- Advocated for the standardized use of the center's color palette in developing PowerBI reports to establish NCEH/ATSDR brand identity across all division reports for consistency and continuity purposes.
- Collaborated with IT Services to set-up data gateways for published PowerBI reports, test gateways for scheduled data refreshes, and subscribe stakeholders to weekly email reminders at each data refresh.
- Researched and investigated new methodologies in data science and data visualization for potential implementation in future projects including custom PowerBI toolkits and Databricks applications.

PROFESSIONAL EXPERIENCE //

ArtCenter College of Design|

Assistant Registrar, Enrollment Services

- Modernized graduation forms using an in-house HTML form builder and developed a systematized process for diploma verification, packaging, and delivery.

Pasadena, CA

July 2021 —
November 2022
Full-Time

- Analyzed, reviewed, and evaluated 300+ degree audit reports in PDF format within a 4-week period, 3 times/year, and managed follow-up communication to ensure completeness of reports.
- Streamlined logistics and planning of graduation ceremonies 3 times/year, by implementing targeted outreach strategies using digital platforms to improve event participation.
- Served as liaison to 9 departments and collaborated with department staff to build curriculum and enrollment scheduling using pre-arranged spreadsheets by term deadlines, resulting in 100% compliance for the first time in department history.

Senior Student Services Generalist, The One Stop: Student Services Hub

Otis College of Art and Design | Los Angeles, CA

March 2018 —
July 2021
Full-Time

- Managed support service operations and appointments for 1000+ students, triaged and supported 4 departments, and implemented a virtual drop-in advising system for remote operations using ZOOM.
- Acted as a technology consultant for the implementation and updates to Cashnet and Dynamic Forms platforms to optimize user interface for end-users.
- Digitalized and updated 20+ student support forms using Formstack and Dynamic Forms to streamline transactional processes and established a FedEx diploma delivery system with a 99% delivery success rate.
- Devised communication strategies, methodized communication templates, and redesigned enrollment guides, tutorials, and orientation videos to make them more user-friendly, accessible, and adaptable to the audience and demographics.

Student Affairs Officer, Dashew Center for Int'l Students and Scholars (DCISS)

University of California Los Angeles (UCLA) | Westwood, CA

January 2015 —
March 2018
Full-Time

- Collaborated with IT to design, test, implement, and evaluate an in-house online submission database utilizing an XML batch for large-scale document processing.
- Collaborated and boosted relations with 40+ external departments on operational practices and increased orientation participation to 95% within 2 years.
- Reviewed and processed 3,000+ document requests within a 5 month period annually and streamlined team workflow to optimize data entry processes.
- Digitized 15+ forms to PDF format, redesigned informational guides, brochures, and flyers and produced interactive orientation videos to enhance user experience.
- Developed an interactive student staff training program and presented and curated colleague training workshops on regulatory compliance to a non-technical audience.

Int'l Student Intake Advisor, Dashew Center for Int'l Students and Scholars (DCISS)

May 2010 —
December 2014
Full-Time

- Spearheaded department wide paperless initiative converting 10,000+ files into digital records using existing resources within 6 months.
- Revamped the student records system and implemented a standardized system for records keeping and archiving for over 10,000+ records.
- Conducted visa check-in sessions and implemented an effective work flow system to improve visa check-in, manage and process 2000+ student requests annually.
- Provided intake advising in a high volume environment for student inquiries and support services to 10,000+ international students.

TECHNICAL TOOLS //

- Python | Packages: Pandas, NumPy, Scikit-Learn, Seaborn, Matplotlib, GeoPandas, GeoPy, TensorFlow.
- R | Packages: tidyverse, ggplot2, psych, mass, glmnet.
- Jupyter Notebooks, Google Collab, PowerBI, Tableau, SQL, and Databricks.