ALEX CLIPPINGER

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EXPERIENCE

Data Scientist – RDN, Inc., Santa Barbara, CA (Dec 2021 – Present)
- Data science and data engineering
  - Maintain ETL data pipeline on AWS to process, geocode, and store Altos rental data (Python, PostgreSQL)
  - Produce data visualizations in R Markdown to communicate historic and predicted water consumption
  - Establishing Python and R coding styles, version control (git), and documentation (Confluence/Jira)
- Tools and process improvements
  - Created Python (streamlit) dashboard for querying and downloading Altos data from PostgreSQL
  - Created R Shiny app to interactively set water rates and visualize financial impacts for final deliverables
  - Improved time-series forecasts using Prophet to create water demand predictions for rate analyses in R
  - Automated generation of 1000+ reports using Python for the USMC Resident Satisfaction Survey
- Technical report writing
  - Conducted geospatial regressions to quantify the effect of underground gold mining on home values
  - Identified sampling bias in Basic Allowance for Housing data collection with causal inference methods

Geospatial Analyst (Intern) – Sentera, Minneapolis, MN (Mar – Aug 2021)
- Delivered analytics using QGIS, including crop NDVI ratings, to inform farmers on time-sensitive decisions
- Processed drone imagery and stitched orthomosaics using photogrammetry software (Metashape, Pix4D)

Risk Analyst – AIR Worldwide, Boston, MA (Jan – Jun 2019; Jan 2020 – Jan 2021)
- Produced monthly market summary reports using SQL covering $30+ billion in outstanding principal
- Project manager for 30+ remodeling projects for the catastrophe bond database in Touchstone Re

Data Analyst, Supply Chain (Intern) – Wayfair, Boston, MA (Jan – Jun 2017)
- Created complex SQL scripts to pull large amounts of data and deliver detailed weekly Excel reports
- Developed analyses that drove a 10,000+ monthly shift of high impact packages from FedEx to UPS

PROJECTS

Master's Capstone Project (Jan – May 2022)
- Created random forest feature selection algorithm to identify important predictors of forest health
- Developed interactive R Shiny app to expedite exploratory analysis and interpretation of model results

Predicting Housing Prices (Kaggle)
- Predicting home sales using XGBoost model, including data transformation, feature engineering, and hyperparameter tuning, resulting in prediction accuracy in the top 80th percentile (~4,000 entrants)

Market Area Creator
- R Shiny tool to interactively make isoline shapefiles (area within specified time/distance) using the HERE API

EDUCATION

Master of Environmental Data Science, 4.00 GPA (Jun 2022)
Bren School of Environmental Science & Management – University of California, Santa Barbara (UCSB)
       Involvement: Teaching Assistant – UCSB Department of Economics (Sep 2021 – Jun 2022)

Graduate Certificate in Geographic Information Systems (GIS), 4.00 GPA (Apr 2021)
Northeastern University – Boston, MA

B.S. in Economics and Mathematics, 3.66 GPA (Dec 2019)
Northeastern University – Boston, MA
       Involvement: Statistics & Econometrics Tutor (2018)

SKILLS

Data Science: Econometric analysis, causal inference, time-series forecasting, natural language processing (NLP), decision trees (Random Forest, XGBoost), geospatial regression
Programming: Python (pandas, numpy, scikit-learn), R (tidyverse), SQL (SSMS, Postgres), Git
Software/Tools: AWS (EC2, RDS, S3), Tableau, Microsoft Excel, ArcGIS (Pro, Online), QGIS, Figma