Kevin Galvan Cuesta

Software Development and Data Science

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EDUCATION

Case Western Reserve University ***Aug. 2018 - May 2022***

Bachelor of Arts with majors in Computer Science, Economics, & Philosophy
Minors: Artificial Intelligence & Political Science

GPA: 3.89 in Major - *Jack Kent Cooke Scholar, Maybell S. Donnell Award, Dean's Honors 2018-2022*
Certifications - *Google Data Analytics, Google Advanced Data Analytics*

TECHNICAL SKILLS

- Machine Learning
- Python
- NumPy, Pandas & Flask
- Scikit-learn & Tensorflow
- Software Development
- Java: Maven & JavaFX
- JavaScript & HTML
- AWS
- Data Science
- SQL & Apache Spark
- Excel, R & Stata
- Jupyter Notebooks

EXPERIENCE

CALIFORNIA HOUSING DEPARTMENT ***June 2022 - March 2023***
Data Science Consultant (Contract)

- Automated 90% of land plot analysis and financial calculation overhead via Machine Learning methods using Scikit-Learn, PyXLL, and Excel VBA Macros, resulting in significant cost savings for the department.
- Achieved 81% accuracy on an SVM ensemble to predict the likelihood of obtaining building permits on land parcels using the generated financial metrics in Python.
- Spearheaded CUDA-based analysis, achieving 8x faster computation time than standard CPU methods.
- Presented our findings using Tableau which lead to 7 other cities joining the project, resulting in a 400% increase in total data availability and communicated to leverage their experience in related works.
- Developed regression-based algorithms to accurately generate financial metrics using comprehensive parcel data, including information on base-zoned and bonus-zoned units, building permits, and assessor data.

CASE SCHOOL OF ENGINEERING ***Dec. 2021 - May 2022***
Research Lead, Web Development

- Reduced professors' workloads by providing on-demand Statics Engineering practice to students in over 80 engineering schools (available in portfolio).
- Secured funding to hire 3 new workers by building a demo .NET image processing application to find key body points using Blazepose, Caffe, and OpenCV in Python. Deployed using AWS.
- Led this team to remodel the desktop version into a web application deployed on AWS. The application was built using HTML, JavaScript, and CSS.
- Improved the robustness of the algorithm by 35% for off-center and obscure image angles.

WEATHERHEAD SCHOOL OF ECONOMICS ***Aug. 2019 - May 2022***
Teaching Assistant

- Facilitated student success and improved grades by coaching students in data analysis via laboratory sections in R, Stata, and Python.
- Modernized graduate-level course material by creating new projects, including a machine learning project for Advanced Econometrics.
- Extended the Public Finance lecture series by conducting a semester-long supervised independent study on Economic Philosophy. The final essay contribution was selected to become a new lecture.

GRADUATE COURSE RESEARCH

- Studied Gradient Ascent as applied to the poisoning of Support Vector Machines. This research delved into flip cost functions for potential attackers. Achieved 12 % reduction in accuracy post-poisoning.
- Investigated Online Planning with Reinforcement Learning. Optimized scheduling algorithms resulting in a 3-5% increase in planning efficiency for a 2012 paper.
- Implemented the Cascading Inverse Reinforcement Learning algorithm with a particular focus on alternative regressions in the estimation step. Due to the sparsity of the sample space, Gaussian Process and Ridge regressions increased our R-Squared by as much as 20 %.