

WENXUAN (JESSE) HE

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SENIOR DATA SCIENTIST – 6 YOE

PROFESSIONAL EXPERIENCE

UBER TECHNOLOGIES • SAN FRANCISCO, CA *Senior Data Scientist* *Dec 2018 – Present*

- Designed, developed, deployed Uber Internal Audit's first end-to-end machine learning research to detect Uber's cash intermediary-vendors with 83% coverage.
 - Publication: <https://eng.uber.com/ml-internal-audit/>
- Designed and built over 60 dashboard metrics to automatically monitor Uber's Global Software Development Life Cycle as an integral component to reacquire Uber's London license
 - In the News: <https://www.cnbc.com/2020/09/28/uber-granted-temporary-london-license.html>
- Analyzed and concluded on driver behavior patterns from variable deactivation dates against a synthetic control group selected from user-matching by using statistical analysis (Diff-in-Diff and t-tail test)
- Preprocessed geospatial, temporal, and tabular data and trained a clustering algorithm to identify driver and rider behavior pattern clusters at airports
- Built bag-of-words topic models using NLTK to discover common themes across customer support tickets
- Conducted statistical analysis to quantify Uber's global fraud risk exposure in customer-support miscellaneous payments
- Built efficient ETL pipelines to create fact-tables for data analytics and data science.
- Created the Internal Audit - Core Analytics and Sciences team's operating model, which is the current standard used by the entire team of 40 people
- Mentored internal auditors in SQL and data analytics and facilitated classes in the Internal Audit Data Championship program

EY LLP • SAN JOSE, CA *Senior Data and Analytics Specialist* *Aug 2017 – Dec 2018*

- Performed data transformations in SQL, ACL (Audit Command Language), Python and Alteryx
- Developed and optimized a custom bot in Python to automate a client's manual work
- Created an EY national standard template for data preprocessing in Alteryx
- Taught classes in Spotfire workshop and Alteryx workshop

CROWE HORWATH LLP • SAN FRANCISCO, CA *Auditor, CPA* *Aug 2015 – Aug 2017*

- Conducted data analytics and financial statement audits for over 20 banks and school districts
- Researched for relevant and appropriate interpretations of financial statement audit procedures

PUBLICATION

APPLYING MACHINE LEARNING IN INTERNAL AUDIT WITH SPARSELY LABELED DATA (2021) - PAPER PUBLISHED ON UBER ENG BLOG: <https://eng.uber.com/ml-internal-audit/>

COMMUNITY SERVICE

SOCIAL IMPACT ANALYTICS INSTITUTE • SEATTLE, WA *Data Scientist* *Nov 2020 – present*

- Experimented with various implementations of BERT to contextualize police reports
- Benchmarked Tesseract against other PDF text-extraction techniques to find the most efficient workflow

NO SCHOOL VIOLENCE • SEATTLE, WA *Data Scientist* *Sep 2020 – Nov 2020*

- Modeled unstructured data to assign risk rating to kids in risk of violence in school
- Researched and designed the first-generation infrastructure for deployment

- Mentored college students on data transformation and NLP techniques

MISSING MAPS / AMERICAN RED CROSS **Data Engineer**

Dec 2019

- Mapped roads, buildings, and villages using satellite images of South Sudan

GLOBAL PHILANTHROPY LEADERSHIP PROGRAM • NINGXIA **Student Body Director & Instructor**

Jun 2016

- Led over 80 students to assess liquidities and risks in P2P microfinance loans for farmers in NingXia
- Led interviews and investigations in farmers' financial liquidities for the renewal of a 6%, \$200,000 bond for cattle-raising on behalf of Nanseed P2P Microfinance
- Hosted seminars to introduce fundamental concepts in accounting, economics, and risk management

EDUCATION & CREDENTIALS

PURDUE UNIVERSITY • West Lafayette, IN (2011 – 2015)

B.S. in Management Information Systems, Accounting, and Finance (GPA: 3.82/4.00)

Professional Licenses:

- CPA, California Board of Accountancy (2020)
- Commercial Pilot License