JESSICA KIM

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CAREER PROFILE

- data analyst with 3 years of experience in data mining, data analysis and management in clinical research and 1 year of experience in applied machine learning and natural language processing in healthcare
- improved data quality by streamlining the data collection and data analysis process and reducing noise in data by 50% and developed methods to extract information from clinical data

EDUCATION

University of Michigan, Ann Arbor — **Ann Arbor, MI**
Master of Health Informatics, GPA: 4.0/4.0 — **Expected: April 2022**

- Data Science Concentration
- Relevant Coursework: Data Analysis & Manipulation, SQL & Databases, Natural Language Processing for Health, Data Mining, Applied Machine Learning

University of Michigan, Ann Arbor — **Ann Arbor, MI**
Bachelor of Science in Information, GPA: 3.7/4.0 — **2013 - 2017**

SKILLS

Python (numpy, pandas, scikit-learn, tensorflow, pytorch, matplotlib, seaborn, nltk), Jupyter Notebook, R, mySQL, Applied Statistics, Applied Machine Learning, Data Mining, Natural Language Processing (NLP), MATLAB

WORK EXPERIENCE

Graduate Student Research Assistant — **April 2021 - Present**
Michigan Medicine — **Ann Arbor, MI**

- Designed list of computable phenotypes that can be used to build algorithm to analyze EHR data and help detect dementia & Alzheimer's Disease in potential patients
- Developed rule-based pattern-matching system to extract definitions and contexts from scholarly manuscripts using Python regular expressions to design knowledge maps that would facilitate researchers in making full use of knowledge in the field

Neuroimaging Data Analyst — **Sep 2017 - May 2020**
Center for Human Growth & Development | University of Michigan — **Ann Arbor, MI**

- Facilitated in developing methodology and application for fNIRS (optical brain imaging technique), including signal preprocessing and analysis, by exploring methods in minimizing noise and eliminating outliers in data
- Analyzed neuroimaging data using MATLAB and implemented visualizations for researchers
- Streamlined data collection, management & analysis pipeline and improved data quality by 50%
- Trained & supervised research assistants, PhD students, and research teams in neuroimaging data collection & data analysis

ACADEMIC PROJECTS

Natural Language Inference: Sentence Models & Relation Extraction — **February - April 2021**

- Developed NLP model to extract relationship between sentences using natural language processing (NLP)
- Used Python TensorFlow to train and evaluate NLP models and implemented GloVe vectors to initialize and fine-tune word embeddings
- Combined different models such as LSTM and sentence embedding models from research literature to find an optimal model for NLI task

Medical Transcription Classification — **March - April 2021**

- Developed an NLP model that correctly classify medical specialties based on the transcription text
- Used Python sklearn and xgboost to build, train and evaluate different NLP models

CERTIFICATIONS

Natural Language Processing Specialization - DeepLearning.AI (Coursera) — **May 2021**
Applied Machine Learning in Python - University of Michigan (Coursera) — **January 2021**