

Zhongyu Pan

[My Portfolio](#) - [LinkedIn](#) - [Github](#) - [1-\(778\)-318-1663](tel:17783181663) - panzy0524@gmail.com - Montreal, QC

Experience

Artificial Intelligence Instructor & Data Analyst

01/2023 – Present

LinkedIn | Hybrid part-time, Carpinteria, CA

- Created the course *Sentiment Analysis with PyTorch and Hugging Face Transformers*, guiding learners through text data preprocessing, model training, and deployment in real-world sentiment analysis applications.
- Applied data analysis techniques to large-scale text datasets to uncover sentiment patterns, prepare training data, and evaluate model performance.
- Created high-quality educational content, including cinematic lectures and hands-on coding sessions, in collaboration with content producers, audio engineers, and a film director
- Released *Natural Language Processing with PyTorch*, reaching over 6,000 learners globally and helping professionals gain practical AI and data analytics skills.

Agile Developer – Data Wrangling Team

01/2020 – 12/2022

SAP | Vancouver, BC

- Used SQL to analyze user data and improve workflows. Built re-editing features in SAP Analytics Cloud (SAC) using React.js in an MVC pattern, reducing data retrieval time by 20%.
- Created backend logging with Node.js to track user click behavior and integrated data collection with wrangling processes for smoother analysis.
- Implemented a pub/sub system to monitor user actions in SAC, supporting better insights and user-focused improvements.

Graduate Teaching Assistant – Master of Data Science Program

University of British Columbia | Vancouver, BC

- Supported instruction for a graduate-level NLP course focused on Python-based Computational Semantics.
- Assisted students with course material, answered questions, and graded labs and quizzes.

Data Scientist Intern

06/2019 – 12/2019

Minerva Intelligence | Vancouver, BC

- Conducted comprehensive data cleansing and analysis using an ETL data pipeline to ensure integrity and consistency of geological data.
- Developed Convolutional Neural Networks based information extraction system to map unstructured mining documents to structured data fields, improved model accuracy from 88% to 96%.
- Presented analytical reports in weekly team meetings to support data-informed decision-making.

Education, Certifications, and Skills

University of British Columbia | Master of Data Science

Graduated 05/2020

Curriculum: Machine Translation, Sentiment Analysis, Computational Semantics, Advanced Corpus Linguistics, Data Manipulation, Algorithms and Data Structures, Data Visualization, Machine Learning, Databases and Data Retrieval.

Hefei University of Technology | B.S. in Financial Mathematics

Graduated 05/2015

Google Data Analytics Professional Certificate by Google

Issued 11/2023

Machine Learning by Stanford University

Issued 06/2018

Technical Skills : Data Analysis | Natural Language Processing | Data analysis | SQL database management | Python programming | Data Visualization | Tableau | Content Creation | Web Development | Git | IT project management | Agile methodologies | Native proficiency in Chinese and English, conversational proficiency in French

Soft Skills : Communication | Teamwork | Problem-solving | Adaptability | Leadership | Time Management

Projects

Information Extraction System for Geology Reports – Minerva Intelligence (Client Project)

- Built and deployed an AI-powered information extraction system within company infrastructure, using BC geology report datasets.
- Implemented a Convolutional Neural Network (CNN) in PyTorch and integrated scikit-learn algorithms to extract targeted information from unstructured geological texts.
- Improved model performance by boosting classification accuracy from 88% to 96% through CNN refinements.

Lyrics Transliterator – University Project (UBC Master of Data Science)

- Developed a Seq2Seq transliteration model to convert Chinese song lyrics to Pinyin, enabling non-Chinese speakers to perform foreign songs.
- Applied robust data preprocessing techniques, including aggregation and filtering, to streamline input data and improve system efficiency; Scraped 1,000+ Chinese and English lyrics from Lyrics.com using Python and BeautifulSoup for training data.
- Collaborated with a team of UBC students to deploy a user-facing transliteration app with deep learning algorithms.

Awards

Super Volunteer, Women in Machine Learning Conference (Vancouver, BC)

Awarded 12/2019

First Prize Winner, 2018 Interdisciplinary Contest in Modeling (ICM)

Awarded 05/2018

Publications

Investigation of OH radical in the water nanodroplet during vapor freezing process: An ab initio molecular dynamics study.
Journal of Molecular Liquids, 343, 117597, Dec. 1, 2021

Option Pricing Analysis Based on Financial Mathematics Technology
Advances in Social Science, Education and Humanities Research, July 1, 2017