

YIMING ZHANG

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EDUCATION

China University of Geosciences Beijing (CUGB)

Beijing, China

BS in Geophysics

09/2020 – 07/2024

- GPA: 87.03/100, 3.5/4.0 (WES)
- Selected awards: First Prize of CUGB, the 6th China Undergraduate Physics Tournament (04/2021); Second Prize, Beijing Undergraduate Physics Tournament (03/2021)
- Courses: Higher Mathematics, Computer Language Programming, Linear Algebra, College/ Experimental Physics, MATLAB Programming with Applications, Probability and Statistics etc.

PUBLICATIONS

- YW.Zhang, GF.Ye, **YM.Zhang** (Co-Author), “Three-dimensional Electrical Structure and Metallogenic Background of the Southeastern Hubei Ore Concentration Area”, Published, *Minerals*

RESEARCH EXPERIENCE

Three-dimensional Electrical Structure and Metallogenic Background of the Southeastern Hubei Ore Concentration Area

Beijing, China

Core Member, Supervisor: Prof. Gaofeng YE

12/2022 – 06/2023

- Collected and processed raw data from 117 measurement points in the study area, located between 113E-117°, 28N-1°, analyzing the collision and suture zone between the North China Block and Yangtze Block.
- Utilized WinGLink to acquire impedance tensor data and employed advanced Magnetotelluric (MT) data processing techniques, including robustness estimation and power spectrum selection, preparing for subsequent inversion transformation.
- Gathered relevant geographical data and conducted a literature review of previous work, providing insights into deep structures, geological evolution, and other aspects.
- Conducted polar analysis using Swii decomposition and phase tensor analysis, determining the structural orientation of the study area through GB decomposition rose diagrams.
- Performed three-dimensional inversion transformation using the NLCG-based (Nonlinear Conjugate Gradient) MOEM algorithm. Fine-tuned the model by iteratively adjusting inversion parameters and selected the optimal model, achieving a root-mean-square-error of 4.3649.
- Analyzed and interpreted the three-dimensional electrical structure of different geological units in the study area under the context of regional geological characteristics and its relationship with ore-forming structures. Contributed to the writing and revision of the paper, culminating in the successful publication.

Research on the Application of Phase Change Materials in Cold Energy Management

Beijing, China

Team Leader, Supervisor: Prof. Xiuwen WU

09/2021 – 05/2023

- Under the guidance of a mentor, led a team of two to set the direction of experimental approach on condensation treatment of phase change materials. Efficiently managed the procurement of the necessary experimental equipment and ensured timely delivery.
- Demonstrated expertise in designing the experimental apparatus. Created drawings and utilized 3D printing technology to produce a physical model of the apparatus.
- Gained hands-on experience by conducting the laboratory experimentation in the laboratory and collected experimental data for analysis.
- Utilized Python and MATLAB to plot time-series curves of observed temperature, further analyzing the refrigeration effects of phase change materials at different temperatures, among other tasks.

Cradle Cup Challenge (Cross-country Tour)

Beijing, China

Core Member of Operations Department, Supervisor: Assoc. Prof. Liqin CHEN

05/2021 – 03/2022

- Conducted comprehensive competitor analysis on over 10 preeminent industry players, including gathering information on their revenue, performance growth, product portfolios, etc., and summarized the insights into a 20-page benchmark analysis report.
- Utilized data analysis of TikTok (Douyin) big data to identify potential prospective customers. Delved into understanding their particular needs and conducted field visits to verify options for strategic planning.
- Played a pivotal role in planning and executing marketing promotion activities. Successfully attracted attention of hundreds of customers within 30 days.

INTERNSHIP EXPERIENCE

Tianjin Research Institute for Water Transport Engineering, M.O.T. China

Tianjin, China

Data Analyst, Water Transport Engineering Numerical Simulation Technology Research Center

11/2022 – 02/2023

- Oversaw a series of essential tasks, including instrument setup, data collection, preprocessing of field data, and subsequent indoor data analysis etc.
- Implemented terrain correction and height correction techniques to the surveyed areas, utilized programming software to calculate excavation volumes, and created regional gravity anomaly maps to detect underground mineral bodies.

- Collaborated closely with technical personnel in using MATLAB to create local anomaly maps, contour maps, and calculate excavation volumes for specific regions.
- Demonstrated outstanding resilience and adaptability by consistently navigating high-pressure, time-sensitive situations.

Alibaba Group

Remote

Assistant, Decision Support Department

08/2022 – 09/2022

- Implemented and executed rigorous data cleansing process on Taobao user browsing and purchasing data during a specified timeframe using Python.
- Examined the outcomes post data cleaning, categorized user consumption tendencies and preferences, and provided strategic insights for the sales models of certain products.
- Articulated these findings and recommendations in a comprehensive user behavior analysis report, enhancing decision-making processes.

LEADERSHIP AND COMMUNITY ACTIVITIES

CUGB Students' Union

Beijing, China

Head of the Cultural and Sports Department

11/2021 – 11/2022

- Planned and executed multiple cultural and sports events, including two editions of the Top Ten Campus Singers Competition, graduation gala, and sports competitions.
- Implemented innovative strategies and efficient delegation of responsibilities to overcome obstacles, and enhanced leadership and organizational skills

Psychology Association of CUGB

Beijing, China

Peer Psychological Support Counselor

09/2021 – 09/2022

- Led new students in participating in group activities, sand table exercises, and other events to ensure their seamless transition into campus life and make preliminary career plans.
- Attended training sessions attentively, gained experience by observing expert trainers, and prepared for unforeseen situations, improving communication skills and adaptability.

ADDITIONAL INFORMATION

Hobbies: Basketball, Badminton, Bamboo Flute (Level 6), and Guitar

Computer Skills: Proficient with C++, MATLAB, Python, R, SQL etc.

Languages: Native Mandarin Chinese speaker, fluent in English