Zichen HONG

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EDUCATION

Department of Chemistry, Zhejiang University Zhejiang, China 09/2022 - Present
M.S. Student. Concentration in analytical chemistry and in vitro diagnosis
- GPA: 90.6/100 Rank: 1/ 80

Chu Kochen Honors College, Zhejiang University Zhejiang, China 09/2018 - 06/2022
B.S. in Chemistry
- GPA: 3.95/4.0 Rank: 4/ 20
- Coursework: Analytical Chemistry, Physical Chemistry, Supramolecular Chemistry, Probability, Engineering Training, Organic Synthesis Experiment, Biochemistry and Experiment C, Chemical Biology Experiment, Visualization in Scientific Computing

Queen's University Belfast: Engineering and Physical Sciences Summer School 2021(remote) 07/2021 - 07/2021
2021 Excellent Oral Presentation

PUBLICATIONS

[1] Jingfeng Zhang†, Zichen Hong†, Wei Lu, Tianyuan Fang, Yongan Ren, Shenyi Yin, Qijia Xuan, Dezhi Li*, Jianzhong Jeff Xi*, and Bo Yao*. Assessment of Drug Susceptibility for Patient-Derived Tumor Models through Lactate Biosensing and Machine Learning. *ACS Sensors.* **2023** 8 (2), 803-810.

RESEARCH EXPERIENCE

Quantifying single extracellular vesicle impedance by label-free electrochemical imaging
06/2023 – Present
Co-worker, Supervisor: AP. Guangzhong MA & Prof. Bo YAO
- Under review. Data not published.

Identifying Cell Types through SERS and Machine Learning 09/2022 – 05/2023
Researcher, Supervisor: Prof. Bo YAO
- Utilized Confocal Surface Enhanced Raman Spectroscopy (SERS) to acquire 3082 spectra of 5 cell lines.
- Employed a random forest algorithm via Python to identify these spectra.
- Achieved an overall accuracy of 93.2% to distinguish 5 cell lines.
- Data not published. This was a training program for machine learning.

A Drug Susceptibility Assessment Model Based on Machine Learning and Gold Electrode Biosensor
03/2022 - 03/2023
Co-worker, Supervisor: Prof. Bo YAO

Outline:
- Published a paper as co-first author in the journal ACS Sensors.
- Responsible for the machine learning section. I established a machine learning model to assess tumor sphere viability.

Achievement:
- Won Excellent Award at the 11th Scientific Research Achievement Exhibition of the Department of Chemistry, Zhejiang University.
- Conducted a 20 minute Oral Presentation in "the 5th Microfluidic Technology Application Innovation Forum" of the Chinese Society of Micro-Nano Technology, Guangzhou.

TEACHING EXPERIENCE

- TA, College Chemistry Experiment A, ZJU (Instructor: Prof. Hong SHEN) Spring 2023
- TA, Analytical Chemistry B, ZJU (Instructor: Prof. Bo YAO) Fall 2022

HONORS AND AWARDS

- Outstanding Graduate Student 2023
- China National Petroleum Corporation (CNPC) Scholarship (for all-round ability, awards to 2 out of 425 students, CNY 8000) 2023
- Outstanding Graduates of Zhejiang University 2022
- First Place for "the 15th Shanghai College Student Chemistry Experiment Competition" in Shanghai 2021
- Top Scholarship for Basic Disciplines (awards to 2 out of 21 students, CNY 5000) 2021
- Second Class of Zhejiang University Scholarship (for all-round ability, Top 8%, CNY 4000) 2021

- Outstanding Student 2019
- Zhejiang Provincial Government Scholarship (for all-round ability, Top 3%, CNY 6000) 2019
- First Class of Zhejiang University Scholarship (for all-round ability, Top 3%, CNY 6000) 2019
- First Class of Tianxing Freshman Scholarship (awards to 10 out of 83 students, CNY 10000) 2019
- Second Prize of the 31st Chinese Chemistry Olympiad 2017

PROFESSIONAL SKILLS

- **Programming:** Python, Matlab
- **Languages:** Chinese (native), English

EXTRACURRICULAR ACTIVITIES

Chairman Science Popularization Office, Department of Chemistry, ZJU 01/2020 – 09/2021

Director the Rights and Services Department of the Student Union of the Department of Chemistry, ZJU 09/2019 – 01/2020

Team member Summer Teaching Support Team of Peasant Rural and Agriculture Association (PRAA), ZJU 07/2019 – 08/2019

- Acted as a fourth & fifth grade science teacher in primary school, Anhui Province, China.
- Our team won the Gold Award for "China Education Support Project: Chinese College Students Rural Teaching Support Award" (Only two teams nationwide)

Updated: May 24, 2024