

## EDUCATION

<b>Jilin University, Changchun, China</b>	<b>09/2019-06/2024</b>
<ul style="list-style-type: none"><li>• Bachelor of Medicine in Preventive Medicine; Minor in German Language</li><li>• GPA: 3.54/4.00 (Ranking: 9/104)</li><li>• <b>Relevant Coursework:</b> Calculus D, Linear Algebra D, Health Statistics A, Application of R Language in Medical Data Analysis, The Foundation of Python Programming, Epidemiology, etc.</li></ul>	
<b>Trine University (Online Courses; Obtained 7 Credits)</b>	<b>06/2023-08/2023</b>
<ul style="list-style-type: none"><li>• Calculus II (Grade: A); Prob And Stats (Grade: A)</li></ul>	
<b>Rio Salado College (Online Courses; Obtained 4 Credits)</b>	<b>09/2023-10/2023</b>
<ul style="list-style-type: none"><li>• Calc Analytic Geom III (Grade: A)</li></ul>	

## RESEARCH EXPERIENCES

<b>A Pulsed Vaccine Strategy in the Prevention and Control of Mpox Epidemics</b>	<b>10/2023-present</b>
Capstone Project, Jilin University	
<ul style="list-style-type: none"><li>• Constructed the JYNNEOS Vaccine dynamic model based on impulsive differential equations and the SEIR model.</li><li>• Derived infection-free periodic solution.</li><li>• Performed numerical fitting on MATLAB; explored the effects of initiation time, pulse vaccination rate, and pulse interval on mpox epidemics control; determined the optimal vaccination strategy.</li></ul>	

<b>The Research of Mixed Vaccine Strategy on Epidemic Dynamics</b>	<b>01/2023-present</b>
Research Assistant, Jilin University	
<ul style="list-style-type: none"><li>• Established dynamic equations for mixed vaccine strategy; derived infection-free periodic solution.</li><li>• Obtained the linearized equations; added a small disturbance term to the periodic solution.</li><li>• Derived the time needed to reach the goal of ending TB for different initiation times of the mixed vaccine strategy.</li><li>• Simulated the pulse interval and pulse vaccination rate varying in a specific range; determined the effect of the variation of pulse interval and pulse vaccination rate on time towards the elimination of TB.</li></ul>	

<b>Cross-Sectional Study on Functional Constipation among Undergraduates and Analysis of Influencing Factors</b>	<b>11/2022-12/2022</b>
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Project Leader, Jilin University	
<ul style="list-style-type: none"><li>• Adopted convenience sampling method for Chinese undergraduate students; collected 642 valid questionnaires.</li><li>• Used EpiData 3.1 for questionnaire creation, data entry, and administration.</li><li>• Performed the chi-square test and rank-sum test; identified factors with the significance of difference.</li><li>• Assigned values to single-factor indicators with the significance of difference; included them in a multinomial log-istic regression analysis; identified two risk factors and one protective factor for functional constipation in Chinese undergraduate students.</li></ul>	

<b>Mechanism of RSL3 Regulating EMT-Induced Glioma Stem Cell Differentiation by Inhibiting Tgm2</b>	<b>05/2022-05/2023</b>
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Second Team Leader, Jilin University	
<ul style="list-style-type: none"><li>• Sequenced RSL3 separately for transcriptomics and proteomics; analyzed the sequencing results jointly; identified 12 altered genes at both levels.</li><li>• Screened the TCGA database; speculated Tgm2 as a target gene of the pathway related to RSL3.</li><li>• Screened the GEPIA database; found the expression of Tgm2 was significantly and positively correlated with a key inducible factor (Snail) in the EMT process.</li><li>• Achieved the visualization analysis with R.</li></ul>	

<b>A Program that can Realize Diabetes Data Mining and Diabetes Prediction Based on ANN</b>	<b>01/2022-02/2022</b>
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Second Team Leader, University of Cambridge (Online)	
<ul style="list-style-type: none"><li>• Performed descriptive statistics and data visualization (scatter plot matrix, pair plot, and heat map) on the Pima Indians Diabetes Dataset in Python.</li><li>• Conducted data pre-processing; divided the Pima Indians Diabetes Dataset into a training set and a test set in a ratio of 4:1 randomly.</li><li>• Constructed the prediction model based on the artificial neural network (ANN) algorithm; incorporated eight input variables as the input layer of the ANN; incorporated the diagnosis of diabetes mellitus as the output variable.</li><li>• Brought training set into ANN algorithm; brought the test set into the model.</li><li>• Evaluated the prediction effect of the ANN model by calculating accuracy, precision, recall, F1-score, and AUC.</li></ul>	

## PROFESSIONAL EXPERIENCE

<b>The Second Norman Bethune Hospital of Jilin University</b>	<b>06/2022-08/2022 (Online)</b>
Clinical Practice, Rotating through 10 departments	<b>09/2022-10/2022 (Onsite)</b>
<ul style="list-style-type: none"><li>• Assisted doctors in daily rounds of patients in each ward; observed and recorded patient data; organized clinical data sets for each department.</li><li>• Analyzed the development trends of each patient's disease through SPSS or Excel; provided references for further treatment methods and drug selection in clinical practice.</li></ul>	

Clinical Practice, Department of Pathology

- Assisted in processing live tissue and making paraffin and frozen sections; learned histopathological diagnosis through an optical microscope.
- Assisted in recording various biopsies data; created a database of pathology cases.

**EXTRACURRICULAR ACTIVITIES**

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**Vice President, Sunshine Volunteer Association of Jilin University****10/2021-10/2022**

- Organized a recycling campaign for used clothes.
- Arranged an online volunteer tutoring program for underprivileged high school students in Gansu Province.

**Coach, Jilin University School of Public Health Debate Team****10/2021-present**

- Participated as a judge in the 2022 Cham Cup Debate Competition.
- Mentored participants in the Matilda Critical Thinking Debate.

**SCHOLARSHIPS AND AWARDS**

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• First Prize Scholarship of Jilin University	2022-2023 Academic Year
• Outstanding Student of Jilin University	2022-2023 Academic Year
• Second Prize Scholarship of Jilin University	2021-2022 Academic Year
• Social Practice Scholarship of Jilin University	2021-2022 Academic Year
• Outstanding Student of the School of Public Health, Jilin University	2021-2022 Academic Year
• Second Prize Scholarship of Jilin University	2020-2021 Academic Year
• Social Practice Scholarship of Jilin University	2020-2021 Academic Year
• Third Prize Scholarship of Jilin University	2019-2020 Academic Year

**SKILLS**

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**Languages:** English (Fluent), Mandarin (Native), German (Basic)**Computer skills:** Python (Proficient), R (Proficient), C (Moderate), SPSS (Proficient), MATLAB (Moderate), etc.