Qinze Yu

qinze979@gmail.com | +86-13258377147

No.4, Section 2, North Jianshe Road, Chengdu, Sichuan, 610054, China

EDUCATION

University of Electronic Science and Technology of China (UESTC)   09/2018-Present

- Bachelor of Engineering in Software Engineering
- Current GPA: 3.97/4.00
- National Scholarship winner

Dalhousie University   07/2019-08/2019

- Summer English in Canada Program
- Courses: ESL Communication (A+), Web Development (A+)
- Outstanding Student Award winner

ACADEMIC EXPERIENCES

Research Projects at the Chinese University of Hong Kong

AMP Prediction via Deep Learning   06/2021-Present

Project Leader, Supervised by Assistant Prof. Yu Li

- Built a diverse and comprehensive multi-label protein sequence database
- Developed an end-to-end hierarchical multi-label deep forest framework to predict the biological activity of AMP, which performs good on minor classes
- Greatly improved the prediction performance of minority classes' AMP
- Applied the model to the 20 new proteins synthesized in the article *Accelerated Antimicrobial Discovery via Deep Generative Models and Molecular Dynamics Simulations*, and accurately identified the biological activity of proteins

ARG Health Risk Prediction via Deep Learning   08/2021-Present

Project Leader, Supervised by Assistant Prof. Yu Li

- Developed a deep learning model to predict ARG health risks using the Pytorch deep learning framework
- Solved the problem that existing tools cannot directly predict ARG health risk based on raw protein sequence

Research Projects at UESTC

Improvement the Performance of Session-Based Recommendation System   03/2021-07/2021

Supervised by Associate Prof. Xucheng Luo

- Used Contrastive Learning on a Heterogeneous Graph to leverage the intriguing relationships among data nodes
- Solved the noisy or conflict knowledge introduced by meta-path based neighbors
- Solved the 'disconnected graph' problem
- Added chronological considerations to the sessions

Development of *Go-Wallet* Cross-Border Payment Application   10/2019-06/2020

ANZ & UESTC Joint Laboratory Program

Leader of 5-Member Team; Supervised by Associate Prof. Zhenhao Li

- Constructed the front-end and back-end network communication frameworks
- Developed the function of adding and deleting cards in the wallet, user information page, and login interface

PUBLICATIONS

[J] JOURNAL [P] CONFERENCE PROCEEDINGS [W] WORKING PAPER [S] UNDER REVIEW

[S2]   **Q. Yu**, Z. Dong, X. Fan, L. Zong, Y. Li, "HMD-AMP: Protein Language-Powered Hierarchical Multi-label Deep Forest for Annotating Antimicrobial Peptides" Submitted to: *26th Int. Conference on Research in Computational Molecular Biology* (ReCOMB 2022)

[P1]   H.Li, X.Luo, **Q.Yu**, H.Wang, "Session-based Recommendation Via Contrastive Learning On Heterogeneous Graph" Accepted to *The 7th IEEE International Conference on Big Data Computing Service and Machine*(IEEE BigData2021)

INTERNSHIP

Department of Computer Science and Engineering, CUHK   09/2021-present
- Research Assistant

Shenzhen Research Institute, CUHK   07/2021-09/2021
- Research Assistant

School of Information and Software Engineering, UESTC   01/2021-06/2021
- Research Assistant

ACTIVITIES

Senior Monitor of Class 8, Grade 2020   09/2020-07/2021
- Provided guidance for the freshmen to help them familiarize with university life and study, and adapt to the new environment better and faster

Monitor of SE Class 8, Grade 2018   09/2018-06/2019
- Took charge of the class daily management, and organization of various activities such as UESTC Forum, Excellent Class Defense, etc.

Member of the University Youth Volunteers Association   09/2018-09/2019
- Planned and organized various volunteer activities

Outstanding Student of the Second UESTC Ginkgo Program   05/2019-06/2019
- Provided etiquette, first aid, and psychological training for volunteers

HONORS & AWARDS

Honorable Mention of Mathematical Contest in Modeling   02/2021
Provincial First Prize of Contemporary Undergraduate Mathematical Contest in Modeling   09/2020
National Scholarship (TOP 2%)   11/2019
Outstanding Student Scholarship of UESTC (TOP 10%)   11/2019

OTHER INFORMATION

Technical Skills: Computer programming languages (C, Python, Flutter); Linux platform knowledge; experiences in front-end development and embedded system design; Database (MySQL, MongoDB)

English Proficiency: TOEFL (101); GRE (326)