Zheng-Chen Yao

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EDUCATION

New York University New York, NY

Master's in Computer Science Sep. 2023 - Present

New York University New York, NY

Bridge to Computer Science, GPA 4.0 Jan. 2023 - Jun. 2023

National Yang Ming University Taipei, Taiwan Bachelor of Science in Life Science, GPA 3.5 Sep. 2010 - Jun. 2014

EXPERIENCE AND PUBLICATIONS

Baylor College of Medicine

Research Technician Dec 2019 - Aug 2023

o Quantitative analysis of hyperactivation state of sperm in female reproductive tract: Propose a quantitative model to identify the state of spermatozoa in vivo and render strong in-vivo evidence for the requirement of reproductive events. [Under Preparation]

ZHENG-CHEN YAO, KOHEI UMEZU, SHANG WANG, AND IRINA V. LARINA, eLife - 2023

o Myometrial progesterone receptor determines a transcription program for uterine remodeling and contractions during pregnancy: Acquire the structures of female mice reproductive tract by micro-computed tomography and provide a unique and qualitative perspective to support the hypothesis.

SP Wu, T Wang, **ZC Yao**, MC Peavey, X Li, L Zhou, IV Larina, FJ DeMayo, **PNAS nexus** 1 (4), pgac155 - 2022

Coursework and Certificates

- NYU Tandon Bridge with Distinction Grade A: Data Structures, C++, Algorithms, Operating Systems, Discrete Mathematics, Computer Networking.
- Object-Oriented Data Structures in C++ University of Illinois at Urbana-Champaign and Coursera: Object-Oriented Programming, C++
- Ordered Data Structures University of Illinois at Urbana-Champaign and Coursera: Data Structures,
- Programming Foundations with JavaScript, HTML and CSS Duke University and Coursera: HTML, CSS, JavaScript

Projects

- Quantitative Model: Using python library for feature extraction and machine learning to identify biological event.
- Personal Portfolio: JavaScript to build up an interactive personal portfolio and connect with Google Sheets API.
- Hotel Reservation System: Using java to build up a hotel booking system. [Currently working on it.]

Programming Skills

• Languages: HTML, CSS, JavaScript, Python, C++, SQL, Java

Technologies: Git, Latex

Houston, TX

Conferences

SPIE Photonics West

San Francisco, CA

- Quantitative OCT analysis of sperm hyperactivation state in mouse fallopian tube: ZC Yao, S Wang, I Larina - Dynamics and Fluctuations in Biomedical Photonics XIX, PC119590I - 2022
- Imaging the transporting function of mouse oviduct in vivo using OCT: S Wang, R Syed, ZC Yao, I Larina - Optical Coherence Tomography and Coherence Domain Optical Methods in Biomedicine XXIV 11228 - 2020

Texas Forum for Reproductive Sciences

Houston, TX

 Quantitative Optical Coherence Tomography analysis of Spermatozoa Hyperactivation State in Mouse Oviduct:

ZC Yao, S Wang, I Larina - 2021, 2022