Jimmy (Juntao) Zhong

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Education

Carleton College, Northfield, MN,   Expected Graduation: Jun. **2023**
- Bachelor of Arts. Majors: **Biology** and **Computer Science**. **GPA: 3.88**
- Relevant Courses: Bioinformatics, Immunology, Genetics, Computational Biology, Algorithm, Data Structure, Computer System.

Pending Publication

Zhong J., Hernández TR., Kyrysyuk O., Tully BJ., Anderson RE. In review (bioRxiv). High transposase abundance in the deep ocean is linked to a particle-associated lifestyle.
The same project is pending for the Astrobiology Conference (AbSciCon22) in May 2022.

Experience

Lab Assistant and Grader
Carleton College, MN   Jan. 2022 – Apr. 2022
- Help students run bioinformatics tools on Linux server terminal to analyze ocean metagenomes.
- Grade homework for Professor Rika Anderson's Bio338, Genomics and Bioinformatics.

Research Assistant
Virtual Planetary lab, Carleton College, MN   Nov. 2020 – Present
- Explore causes for increasing transposase abundance in the deeper ocean under Dr. Anderson, by inspecting gene abundance, selective pressure (pN/pS and dN/dS), signs for lysogenic viruses, etc.
- Analyze metagenomes, metatranscriptomes, and metagenome-assembled genomes (MAGs) recovered from the *Tara* Oceans Project using R and Python.

Software Engineering Intern   Jun. 2021 – May. 2022
Hewlett Packard Enterprise (HPE), Bloomington, MN
- Update patches for the HPE supercomputer operating system (C, ePython).
- Wrote 20+ validation tests before and after system installation (Python, Shell Script).

Research Assistant
Carleton Primate Lab, Northfield, MN   Jun. 2020 – Sept. 2020
- Performed psychology experiments (food rewarding games) to investigate how cognitive failures of aging cotton-top tamarins (*Saguinus oedipus*) relate to biology events in their brains.
- Fed the monkeys, wash cages, and other logistics.

Curricular and Research Data Assistant
Academic Technology, Carleton College, MN   Sept. 2019 – Sept. 2021
- Produced ~40 pages of R manuals and video guides for Humanity classes at Carleton College.
- Provided data cleaning/programming support (via Python and R scripts) to 10+ faculty research and 30+ student projects (final, graduation capstone, etc.).

Research Assistant
Murry's Lab, University of Washington, WA   Jul. 2018 – Sept. 2018
- Prepared heart cells (cardiomyocytes) samples for qPCR and RNA sequencing.
- Built an R Shiny server that queries gene expression data from the lab database and graphs it on a web-interface.

Skills

Python | R | Shell Script | Postgresql | C | HTML/CSS | JavaScript | Java
Native speaker of Cantonese and Mandarin