

# CURRICULUM VITAE

RUNPENG LUO

CONTACT INFORMATION	School of Computing College of Engineering, Computing and Cybernetics Australian National University Canberra, ACT, Australia	Phone: (+61) 416 829 415 E-mail: <a href="mailto:john.luo@anu.edu.au">john.luo@anu.edu.au</a> Website: <a href="https://runpengluo.github.io">runpengluo.github.io</a> Google Scholar: <a href="#">Link</a>
EDUCATION	<b>Princeton University</b> , Princeton, NJ, USA Doctor of Philosophy (Ph.D.) in Computer Science Sep 2024 - ongoing <b>Australian National University</b> , Canberra, ACT, Australia Bachelor of Advanced Computing (Research and Development) (Honours) First Class Honours - GPA: 6.813/7 Advisors: Dr. Yu Lin and Dr. Benjamin Schwessinger Feb 2020 - Dec 2023 <b>Strathfield South High School</b> , Sydney, NSW, Australia High School Certificate ATAR: 94.75 Oct 2017 - Oct 2019	
EMPLOYMENT	<b>Diversity Arrays Technology</b> , Canberra, ACT, Australia R&D Solution Developer Feb 2024 - ongoing <b>Australian National University</b> , Canberra, ACT, Australia Technical Assistant at the School of Biology Summer Research Intern at the School of Computing Teaching Assistant Oct 2022 - ongoing 2021&2022 Summer COMP3320 High Performance Scientific Computation 2023 Semester 2 COMP7240 Introduction to Database Concepts 2023 Semester 1 COMP4300/8300 Parallel System 2023 Semester 1 BIOL8002 Advanced Topics in Quantitative Biology and Bioinformatics 2022 Semester 2 COMP2400/6240 Relational Database 2021&2022 Semester 2	
RESEARCH INTEREST	<i>Computational Biology</i> <i>Combinatorial Algorithm</i> <i>High Performance Computation</i>	
RESEARCH EXPERIENCE	Graph Model and Algorithms for Haplotype-resolved Assembly on Dikaryotic Genome Advisors: Dr. Benjamin Schwessinger, Dr. Lianrong Pu, and Dr. Qing Wang Objectives: Design and implement a bi-partition algorithm to assemble and phase dikaryotic genome using third-generation sequencing (TGS) data and Hi-C data. Feb 2023 - ongoing Plasmid Library Diversity Quantification using Nanopore Sequencing Data Advisors: Dr. Joseph Brock, Dr. Benjamin Schwessinger Objectives: Design and implement a novel classification algorithm to quantify the plasmid combinations from the library mixture. Jun 2023 - ongoing De Novo Reconstruction of Viral Strains via Iterative Path Extraction from Assembly Graphs Advisors: Dr. Yu Lin Objectives: Design and implement an assembly algorithm to reconstruct strains from viral quasispecies under De novo approach. Dec 2021 - Oct 2022	
AWARDS	ANU Summer Research Scholarship, 2021&2022 Summer, Canberra, Australia NSW Government School International Student Awards - Academic Achievement 2020, Sydney, Australia	
TALKS	27th Annual International Conference on Research in Computational Molecular Biology, (RECOMB 2023), <a href="#">Link</a> , Istanbul, Turkey, Apr 2023.	

RELEVANT SKILLS	<b>Programing:</b> Python, C/C++, Java, Haskell, Rust, ARMv7 Assembly, PostgreSQL <b>Utilities:</b> Bash, L <sup>A</sup> T <sub>E</sub> X, Anaconda, Git, VsCode, Jupyter Notebook
LANGUAGES	<b>Mandarin Chinese</b> (native) <b>English</b> (fluent)
REFERENCES	Dr. Benjamin Schwessinger <i>E-mail:</i> <a href="mailto:benjamin.schwessinger@anu.edu.au">benjamin.schwessinger@anu.edu.au</a> Associate Professor at the Research School of Biology, Australian National University  Dr. Yu Lin <i>E-mail:</i> <a href="mailto:yu.lin@anu.edu.au">yu.lin@anu.edu.au</a> Senior Lecturer at the School of Computing, Australian National University
PUBLICATIONS	<b>Luo, R.</b> and Lin, Y., VStrains: De Novo Reconstruction of Viral Strains via Iterative Path Extraction From Assembly Graphs. <i>Proceedings of the 27th International Conference in Computational Molecular Biology (RECOMB 2023)</i> , 3-20 (2023). <a href="https://doi.org/10.1007/978-3-031-29119-7_1">10.1007/978-3-031-29119-7_1</a>