Qile Yang | *Curriculum Vitae*

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Education

2023-27*	**B.A.** Computer Science, *University of California, Berkeley* **B.A.** Data Science **Minor** Bio-Engineering
2022	**SAT Score:** 1510/1600
2020-23	**IB Diploma**, HL Math AA + Biology + Chemistry, *International English Gymnasium Sodermalm*

Research Experience

2025–	Researcher, Song Lab, University of California, Berkeley.
2024	Bioinformatics engineer, Generation Lab Inc.
2023–	Researcher and Bioinformatician, Conboy Lab, University of California, Berkeley.
2023	Researcher, Hallucinating Scaffolds team, iGEM at Berkeley.
2023–	Immunoinformatics and ML Researcher, Borch Lab, Washington University in St. Louis. (Advisor: Nicholas Borcherding)
2023	Method developer, Sahlin Group, Stockholm University. (Advisor: Kristoffer Sahlin)
2022-23	Research assistant, Karlsson-Hedestam/Murrell Lab, Karolinska Institute. (Advisor: Benjamin Murrell)

Awards & Honors

2023	Finalist, National Swedish Research fair (1/55 projects)
2023	Top 60, National Swedish Programming Olympiad Site
2022	Top 115, National Swedish Chemistry Olympiad (Fully Swedish)
2022	Double Admit to Karolinska Institute's summer research programs (1/5 admitted nationwide)
2022	Top school participant, Swedish Biology Olympiad (Fully Swedish)
2023	PostHS scholarship recipient, Equitable College Counselling
2022-23	Swedish National Debate Team member (5 national debating awards)

*Expected.

Publications

Journal Articles

J1. **Yang Qile**. APackOfTheClones: Visualization of clonal expansion with circle packing. *Journal of Open Source Software* **9,** 6868. https://doi.org/10.21105/joss.06868 (2024).
– Media: *R views (by Rstudio)*, *R-bloggers*, *Zhihu* [In Chinese].

Preprints

B1. **Yang, Qile**, Safina, K. R. & Borcherding, N. scRepertoire 2: Enhanced and Efficient Toolkit for Single-Cell Immune Profiling. *bioRxiv*, 2024–12. https://doi.org/10.1101/2024.12.31.630854 (2024).
– Media: *Chinese Software Developer Network* [In Chinese], *Jianshu* [In Chinese].

Working papers

W1. Cruz, J. M., Yeung, H., Alzalzalee, R., **Yang, Qile**, Kabir, H., McDonough, S., Mei, X., Conboy, M. J. & Conboy, I. M. *Exercise induces inflammation and fibrosis of old muscle and heart, unless Alk5 inhibitor and oxytocin are used* Manuscript Under Review. 2024.

W2. Cruz, J. M., Alzalzalee, R., Yeung, H., Mahmood, Z., **Yang, Qile**, Morshedian, N., Conboy, M. J., Mazahery, A. R., Nevado, J. B. & Conboy, I. M. *Plasma dilution rescues cardiac repair after myocardial infarction in old animals* Manuscript Under Review. 2025.

Presentations

Posters

P1. **Yang, Qile**, Sahlin, K. & Murrell, B. *KmerGMA: A seed-based approach for fast homology searching* Swedish National Science Fair 2023 Finals (Sodertalje, Sweden). Apr. 2023.

Demonstrations & Tutorials

D1. **Yang, Qile** & Murrell, B. *Discovery of Novel Camelid Germline Immunoglobulin Alleles* Karolinska Institute's summer research program (SoFo) 2022 (Stockholm, Sweden). Aug. 2022. https://github.com/Qile0317/SoFoCompBio22/blob/main/FinalPresentation.pptx.

D2. **Yang, Qile** & et al. *Final Presentation: Hallucinating Scaffolds Team* iGEM at Berkeley All Hands 3 (Berkeley CA, USA). Dec. 2023.

Selected Media

2024 Chinese Software Developer Network, 免疫组库分析——scRepertoire [Immune repertoire analysis - scRepertoire; in Chinese] [B1]

2023 R-views (by RStudio), May 2023: "Top 40" New CRAN Packages [J1]

Relevant Coursework

Computational Biology: Introduction to Computational Molecular and Cell Biology | Machine Learning, Statistical Models, and Optimization for Molecular Problems

Machine Learning / Statistics: Introduction to Artificial Intelligence | Principle & techniques of Data Science | Human Contexts and Ethics of Data

Biology / Chemistry: Chemical Structure and Reactivity | Organic Chemistry Laboratory | Introduction to Bioengineering | Careers in Biotechnology

Mathematics: Linear Algebra and Differential Equations | Multi-variable Calculus | Discrete Mathematics and Probability Theory | Introduction to Probability and Statistics

Computer Science: Structure and Interpretation of Computer Programs | Data Structures | Introduction to Competitive Programming

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Last updated: March 28, 2025