

Bar Jacobi



barjacobi.com



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EDUCATION

Incoming Ph.D. Student in Computer Science

Autumn 2026

University of Washington

M.Sc. in Bioinformatics

2024–2026

Tel Aviv University

Advisor: Prof. Adi Stern

B.Sc. in Computer Science

2017–2021

Technion – Israel Institute of Technology

RESEARCH INTERESTS

Computational biology; machine learning; protein language models; computational modeling of biological systems.

RESEARCH EXPERIENCE

Stern Lab, Graduate Researcher

2024–2026

Tel Aviv University

Advisor: Prof. Adi Stern

Viral protein function prediction

- Developing computational methods to predict vertebrate viral protein function from protein sequence, predicted structure, evolutionary information, and protein language-model representations.
- Constructing low-homology and family-aware benchmarks to evaluate whether models generalize beyond closely related annotated proteins.
- Comparing sequence- and structure-derived representations to assess which biological functions benefit from structural information.

SARS-CoV-2 within-host evolution

- Developed a replicate-concordance filter to distinguish likely intra-host variants from sequencing noise and applied it to characterize genetic diversity in chronic SARS-CoV-2 infections.

Accelerated Computing Systems Lab, Undergraduate Researcher

2020–2021

Technion – Israel Institute of Technology

Compilers for secure hardware enclaves

- Extended compiler-level memory sanitization to support secure enclave architectures. Added support for futex-based synchronization primitives in multithreaded runtime environments.

PUBLICATIONS

Ben Zvi A, Rutsinsky N, **Jacobi B**, et al. Diverse patterns of intra-host genetic diversity in chronically infected SARS-CoV-2 patients. *Virus Evolution* (2025). doi: 10.1093/ve/veaf047.

INDUSTRY EXPERIENCE

Meta, Production Engineer, Facebook Lite

2021–2024

Infrastructure and reliability

Developed and maintained backend infrastructure for Facebook Lite, including automated data pipelines, service-reliability systems, and distributed monitoring used to detect and diagnose production issues.

FELLOWSHIPS AND HONORS

Warren Alpert Computational Biology and AI Network Fellowship	2025–2026
Edmond J. Safra Center for Bioinformatics Fellowship	2024–2026
Technion Dean's List Top 15% of class	2019–2020

TEACHING EXPERIENCE

Python Programming, Teaching Assistant Tel Aviv University	2024–present
Java Programming, Volunteer Instructor she codes;	2022; 2016–2017
Advanced Operating Systems, Teaching Assistant Technion – Israel Institute of Technology	2021

SELECTED PRESENTATIONS

Edmond J. Safra Center for Bioinformatics Annual Retreat Second place, poster competition; Tel Aviv	2026
Viruses Across Domains of Life Poster; Tel Aviv	2025
Israeli Conference on Hardware and Side-Channel Attacks Competition finalist, student presentation; remote	2021

PROGRAMS AND PROFESSIONAL ACTIVITIES

Computational Genomics Summer Institute Trainee and presenter; UCLA	2025
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LEADERSHIP AND OUTREACH

Alumni Speaker CV Workshop, Technion Career Week	2025
Student Representative Technion Student Association	2018–2020

TECHNICAL SKILLS

Programming	Python, Bash, C++
Machine learning	PyTorch, scikit-learn
Bioinformatics	Viral genomics, next-generation sequencing analysis, phylogenetics, MMseqs2, iVar
Data and systems	pandas, NumPy, SQL, Linux, Docker, Git, high-performance computing