Anat Etzion-Fuchs

anatf@princeton.edu ● 609-865-8499 ● anatetzionfuchs.com

EDUCATION

Exp. 2020 **Ph.D. in Quantitative and Computational Biology**, Princeton University
Appling machine learning methods to uncover patterns underlying protein function, GPA:3.94/4.00
Advisor: Prof. Mona Singh

2015-2017 **M.A. in Quantitative and Computational Biology**, Princeton University

2008-2013 **B.Sc. in Computer Science – Bioinformatics (summa cum laude),** Technion - Israel Institute of Technology
GPA: 92.5/100, ranked #1 in the Bioinformatics track and #12/224 in the CS department
Member of the first class of the Lapidim excellence program (top 5 students of each incoming CS class) for outstanding students with management and entrepreneurship skills.
2012-2013 Project: *"Protein structure similarity using geometrical and chemical properties"*
Advisor: Prof. Yael Mandel-Gutfreund
2011-2012 Project: *"Identifying significant mutations in cancer tumors DNA sequences"*
Advisor: Prof. Tomer Shlomi

WORK EXPERIENCE

2013-2014 **Qualcomm Incorporated**, Haifa, Israel
Software Engineer
A member of the broadcast team, developing SW for a smart TVs and set-top boxes. Responsible for full SW development cycle to develop an Android device driver, including: writing SW requirements, high-level design, detailed low-level design, coding and testing.
Experience in open-source: delivering code to the Android community.

2011-2013 **Qualcomm Incorporated**, Haifa, Israel
Software Engineer Intern
A member of the wireless networking team, developed SW for high-speed wireless chipsets.
Developed Windows/.NET drivers using agile methodology.

2009-2010 **BizTEC - Israel's National Entrepreneurship competition**, Haifa, Israel
Marketing Director
Led the marketing activities for the competition across various universities**.**
Helped orchestrating events that brought together academia and high-tech industry communities.

2005-2008 **Mandatory Military Service in the Israeli Intelligence Corps**, Tel-Aviv, Israel
Data Analyst and Foreign Affairs Manager, rank of First Sergeant
Served in an elite-center, responsible for cryptography research for the Israeli intelligence corps, in the field of signal intelligence.
2007-2008 Led the division's foreign affairs, which entailed organizing workshops and collaborations with foreign countries. Required extensive knowledge of all the division's projects at the intelligence and technological level and included preparing other people for meetings.
2005-2008 Sole responsibility for a project with both intelligence and technology aspects. Data analysis using various programming tools and statistical approaches.

AWARDS AND HONORS

2017	**Princeton Research Day, Best Poster award for graduate/post-doctoral track** Poster title: *"Identifying Functional Protein Domain Positions Using Population Variation"*
2012	**Google Anita Borg Memorial scholarship EMEA** Recipient of the Google Anita Borg Scholarship for leading women in computer science.
2012	**SAMBA scholarship** Technion CS prize for academic excellence, contributed by Mellanox Technologies. Two awards were given for both semesters.
2011	**Lapidim scholarship** Technion CS prize for academic excellence, contributed by Pascal-Louis Perez.
2009	**The Andi Grove scholarship for Intel Employees' children** A competitive scholarship granting prizes for pursuing higher education.
2008-2013	**Lapidim excellence program of the Technion Computer Science Department** Studied with full tuition scholarship and a monthly stipend.
2008-2013	**Technion President's List award of Distinction** Top 3% in each department (4 semesters).
2008-2013	**Technion Dean's List award of Distinction** Top 15% in each department (3 semesters).
2007	**Military "Personal Award of Excellence"** For contributing to the center's work and the advancement of the intelligence service and security.

TEACHING AND METNORING EXPREINCE

2018	**Mentor for First-Year Graduate Students**, Princeton University Spring 2018 Rishabh Sharan (Ph.D. Quantitative and Computational Biology, exp. 2022) Research topic: "*Gradient boosting: tuning performance and predictions*"
2017-2018	**Assistant Instructor**, Princeton University Fall 2017-2018 *"Introduction to Genomics and Computational Molecular Biology"* (COS 551)
2017-2018	**ReMatch Mentor for Undergraduate Students**, Princeton University A mentor through the Princeton ReMatch mentorship program. Constructed a summer research project and advised an undergraduate student. Summer 2017 David A. Todd (A.B. Computer Science, exp. 2020). Research topic: *"Statistical analysis of protein domains using physiochemical properties"* Summer 2018 Madhumitha Shridharan (B.S.E. Operations Research & Financial Engineering, exp. 2020) Research topic: "*Deep learning framework for predicting proteins' functional sites*"

PRESENTATIONS

Posters

08/2017	*Population-based Approach for Functional ranking of protein domains' positions* Quantitative Biology Meeting: Making Use of Emerging Technologies, Cold Spring Harbor, NY
05/2017	*Identifying Functional Protein Domain Positions Using Population Variation* Princeton Research Day (PRD), Princeton, NJ
04/2017	*Identifying Functionally-Important Positions within Protein Domains using Population Variation* NHGRI Training Grant Annual Meeting, St Louis, MO

Talks

06/2012 Students' representative speech on behalf of the SAMBA scholarship recipients
Excellent Students (SAMBA) award ceremony, Technion, Haifa, Israel

TECHNICAL SKILLS

Programming languages: C, C++, C#, Java, Python, R, Matlab, C-Shell, SQL, VBA, LaTeX.
Code management and testing: Git, Perforce, Jenkins.
Languages: Hebrew (native), English (near native), Arabic (Elementary)

SERVICE AND OUTREACH

Leadership

2018-present Princeton Society of Women Engineers (SWE) Graduate Chapter
Board Member

2017-present Princeton QCB mentorship program
Co-founded the mentorship program (Fall 2017), and serve as a mentor for first year graduate students

2017 Princeton Graduate Women in Science and Engineering (GWiSE)
Mentor at the 2017 NYC High School Girls Computer Science & Engineering Conference

2015-2016 Princeton Women in STEM Leadership Council
Committee Member, co-organized a large campus climate survey

Professional Memberships

2012-present Association for Computing Machinery (ACM)
2016-present Women Techmakers
2017-present Society of Women Engineers (SWE)
2018-present International Society of Computational Biology (ISCB)
2018-present Women in Machine Learning (WiML)