

Name: Avi Zakai

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CURRICULUM VITAE

1. Higher Education

A. Undergraduate and Graduate Studies

Period of Study	Name of Institution	Faculty / Department	Degree	Year of Approval of Degree
2016-2018	Technion	Faculty of Education in Science and Technology Faculty, department of Mathematical Education	Associate degree, teaching certificate	2018
2006-2008	University of Haifa	Department of Statistics	M.A. (Mathematical Statistics/Biostatistics)	2008
2005-2006	University of Haifa	Department of Statistics	Completion to B.A level	2006
2001-2004	Yezreel Valley College	Department of Computer Science	B.A. (with honors)	2004

2. Academic Ranks and Tenure in Institutes of Higher Education

Dates	Name of Institution and Department	Rank/Position
2022-Present	Yezreel Valley College, department of Information systems	Senior Teacher
2017-Present	Yezreel Valley College, department of Economics	Teaching Fellow
2020 – 2022	Yezreel Valley College, department of Information systems	Teacher
2018-2020	Technion, External studies division, Data Science	Lecturer
2018-2020	Gordon College of Education, preparatory studies unit	Teaching Fellow
2017-2020	Yezreel Valley College, department of Information systems	Teaching Fellow
2011-2017	Yezreel Valley College, departments of Economics and Information systems	Teaching assistant

3. Invited Lectures

Year	Place of Lecture	Name of Forum	Presentation/Comments
2021	Yezreel Valley College	Academic staff Workshop	Linear Mixed Models
2019	Yezreel Valley College	Academic staff Workshop	Alternatives to Linear Regression in Big Data Environment Using R
2019	Yezreel Valley College	Academic staff Workshop	Generalized Linear Models: Logistic, Ordinal, and Multinomial Regression with SPSS

Year	Place of Lecture	Name of Forum	Presentation/Comments
2018	Yezreel Valley College	Seminar for the Information systems department staff	Multiple Comparisons
2018	Yezreel Valley College	Academic staff Workshop	Introduction to R Programming
2016	Technostat	Workshop for Statisticians	Generalized Linear Mixed Models Using SAS Proc GLIMMIX
2015	AMIT Institute at the Technion	Senior staff workshop	Introduction to Bayesian Statistics
2014	AMIT Institute at the Technion	Senior staff workshop	Statistical Quality Control: Shewhart control charts
2014	AMIT Institute at the Technion	Senior staff workshop	Sample Size Calculations for Clinical Trials
2013	AMIT Institute at the Technion	Senior staff workshop	Data Mining: Overfitting and the Curse of Dimensionality

4. Teaching

a. Courses Taught in Recent Years

Year	Name of Course	Institution
2022-2023	Statistical Learning	Yezreel Valley College
2021-2023	Design and Implementation of Projects	Yezreel Valley College
2021-2023	Advanced Methods in Economic Data Analysis	Yezreel Valley College
2020-2022	Computational Learning	Yezreel Valley College
2020-2023	Data Structures and Algorithms 1	Yezreel Valley College
2020-2023	Basics of Programming for Analysts with Python	Yezreel Valley College
2019-2023	Data Analysis Lab with R	Yezreel Valley College
2018-2023	Econometrics	Yezreel Valley College
2018-2020	Statistical Learning with R for Data Scientists	Technion

Year	Name of Course	Institution
2018-2020	Statistics and Probability with R for Data Scientists	Technion
2018-2020	R Programming	Technion
2018-2020	Mathematics for School Teachers	Gordon College
2018-2020	Quantitative Research Methods	Gordon College
2018-2020	Mathematical Support	Yezreel Valley College
2019	Advanced Data Analysis Workshop	Yezreel Valley College
2015-2023	Discrete Mathematics 2 (Mathematical Logic, Graph Theory)	Yezreel Valley College
2015-2023	Discrete Mathematics 1 (Set Theory)	Yezreel Valley College
2017-2019	Operational Research	Western Galilee College
2017	Programming Support Lab (Logo)	Yezreel Valley College
2017	Introduction to Computer Science	Yezreel Valley College
2011-2023	Introduction to Statistics	Yezreel Valley College
2011-2022	Linear Algebra	Yezreel Valley College
2011-2022	Calculus 1	Yezreel Valley College
2011-2022	Calculus 2	Yezreel Valley College
2011-2019	Introduction to Probability	Yezreel Valley College
2011	Linear Models (Linear Regression)	Yezreel Valley College

5. Miscellaneous

a. Works Connected with my Scholarly Field

- Wrote an electronic textbook: “The R Programming Language Guide”.
- Co-Wrote an exercise booklet for the courses “Introduction to Statistics” and “Statistics for Information Systems”.
- Co-Wrote an exercise booklet for the course “Introduction to Probability”
- Co-Wrote an exercise booklet for the course “Econometrics”

b. Further Roles and Activities

- Project Coordinator – the Information Systems Department, the Yezreel Valley College.
- Student Affairs Advisor - the Information Systems Department, the Yezreel Valley College.
- Member of the Teaching Committee - the Information Systems Department, the Yezreel Valley College.
- Member of the Marketing Committee - the Information Systems Department, the Yezreel Valley College.
- Member of the Committee for the Recognition of Previous Studies - the Information Systems Department, the Yezreel Valley College.
- Member of the Discipline Committee, the Yezreel Valley College
- Former head of the Computing Committee, the Yezreel Valley College
- Digital Pedagogy Coordinator - the Information Systems Department, the Yezreel Valley College.
- Co - Developer of the new curriculum in data science, the Information Systems Department, the Yezreel Valley College.
- Co - Developer of the new curriculum in data analysis, the Economics Department, the Yezreel Valley College.

- Statistical Consultancy for academic staff - the Yezreel Valley College.
- Assistance to the college spokespersonship department by writing an article to a local newspaper and appearing on television morning show.
- Developer of the curriculum in data science - Continuing and Professional Education, Technion.

6. Professional Experience

2015-2020: **Statistical Advisor / Statistician**, Freelancer

- Statistical consultancy for medical device companies: Analysis and design of clinical trials, statistical support to both R&D and quality assurance departments.
- Statistical consultancy for researchers in the academy: Social and behavioral sciences, medical sciences and epidemiology, financial sciences and more.

2015-2016: **Senior Biostatistician**, Technostat:

- Design and analysis of clinical trials in the medical device and pharmaceutical fields: Writing study protocols and statistical analysis plans, calculation of sample size and power, statistical analysis of data and writing of study reports.
- Advanced SAS programming including complex simulations.

2011-2015: **Lead Biostatistician**, the AMIT institute at the Technion:

- Full statistical support for all the companies belonging to the institute.
- Leading the statistical analysis in a big data science project in the medical diagnostics field.
- Design and analysis of clinical trials: Writing study protocols, calculation of sample size and power, statistical analysis of data and writing the study reports.
- Communication with regulatory bodies (FDA, Dekra and others).
- Statistical analysis of quality assurance and R&D data.
- Software development: Design of a database for human resource management, and development of a digital image processing software for medical imaging.