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# Talia Shrem

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Rokach 41, Ramat Gan

## Summary

Problem solver, enthusiastic about research, investigating and searching for answers in data. I enjoy learning new methods, interacting with people and working as part of a team.

## Relevant Skills

- **Machine Learning & Advanced Statistics**
- **Experimental design & Research methods**
- **Data analysis**
- **Independent and proactive**
- **Strong communication skills**
- **Analytical thinking**

## Education

2011-2016 – PhD in Cognitive Neuroscience, The Hebrew University of Jerusalem.

2008-2010 – MA in Cognitive Neuroscience, direct PhD track, The Hebrew University of Jerusalem. Cum Laude.

2004-2007 – B.Sc. in Psychobiology, The Hebrew University of Jerusalem. Cum Laude.

## Professional Experience

- 2021 - Present - DayTwo – **Data Scientist**
- 2020 – Google/Waze (temporary position via Nisha-Pro) - **Data Scientist**
  - Apply machine learning solutions to big data to improve estimated time of arrival (ETA)
  - Research projects and A/B tests to examine specific effects on ETA
- 2018 - 2020 – Deloitte Analytics – **Data Scientist**
  - Using machine learning and advanced algorithms to develop models for customers' needs in financial services. In my latest project I was asked to forecast 300+ time series on a daily basis in order to optimize processes. I developed a model pipeline based on a combination of SARIMA and Random Forests, using Python. The models are now in the process of deployment in Production. Other projects include classification models, using SVM, decision trees, etc.
- 2016-2018 – ElMindA - **Data Management & Technical Operations Specialist**
  - Python code for automatically detecting data discrepancies, querying regularly at different data processing stages, and sending Slack notifications regarding irregularities and errors.
  - supervising data flow from sites in Israel and abroad until it reaches the company's cloud servers on Amazon (AWS) and is stored in the databases (mongoDB) and in the cloud storage.
  - High level querying expertise in a noSQL environment (mongoDB), verifying data quality and integrity, processing and analysis from raw data to customer reports.
  - Professional services: system integration, worldwide installations, and technical training.
- 2015-2016 – National Institute for Testing and Evaluation - **MTAM Development Team** - Writing items for the MTAM (Psychology MA entrance exam). Revisions, preparation and evaluation of the exam. Expertise in statistics and research methods, creativity, and detail orientation.
- 2011-2015 – **Lab Manager** of the Human Cognitive Neuroscience Lab, Department of Psychology, The Hebrew University of Jerusalem.
- 2008-2014 – **Teaching assistant** of "Advanced Research Methods", a core graduate course covering research designs, statistical models and their implementation, and other Statistics and research methods courses at the Hebrew University.

## Technical Skills & DS tools

- Python (Pandas, NumPy, scikit-learn, Matplotlib, Seaborn, etc.)
- Pyspark
- SQL, NoSQL (MongoDB)
- Google Cloud Platform (GCP), AWS
- Matlab

- SPSS

## Research Experience

PhD projects – *Unimodality and Supramodality of Space Representations and Spatial Attention Demonstrated with Vision and Audition*. I designed three EEG studies, testing three aspects of spatial multisensory processing : multisensory spatial attention ([link here](#)), spatial perception ([link here](#)), and the coordinates of spatial maps. I processed the data using filters, Fourier transforms, Global field potential, topographic analysis and other signal processing methods. I tested my results statistically using permutation tests, GLM, ANOVA, t-tests, contrasts, Bayesian statistics etc.

MA project - *Frequency-dependent auditory space representation in the human planum temporale* ([link here](#)). I designed and executed an fMRI study and analyzed the data using GLM mass univariate analysis.

I was responsible for carrying out each project from initial planning, through designing, programming, running experiments, data analysis, writing manuscripts and getting them published.

## Prizes and Awards

2019 – **Datahack** (data science hackathon) - 2nd place in the Armis challenge (Anomaly Detection, we won using Isolation Forest with advanced feature engineering).

2013-2016 – Excellence scholarship from the **Royal foundation**

2014 – Student Award - 15th annual **International Multisensory Research Forum** (IMRF) meeting.

2014 – Honors scholarship from the **Israel Federation of University Women**

2008-2011 – Direct Ph.D. track scholarship, the Department of Psychology

## Social Involvement

2012-2015 – Cofounder of [“Common Ground”](#) - A non-profit organization aimed at raising awareness of gender stereotypes and their effect on our choices and behavior. I created and instructed workshops at high schools, and coordinated the training program for new instructors.

2009-2011- “Bat-Kol” - a program aimed at teaching teenagers critical thinking skills and encouraging creativity.

## Military Service

2000-2002 - welfare coordinator, IDF

## Languages

Hebrew and English – Mother tongue proficiency (bilingual)

Spanish – Basic level