GILI KARNI

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EDUCATION

Minerva Schools at KGI   **San Francisco, CA, USA. 2020**

Bachelors of Science: Majoring in Data Science & Cognitive Science   GPA: 3.88

PUBLICATIONS AND PRESENTATIONS

- Metzner C., Karni G., McMahon-Cole H., Mäki-Marttunen T., and Steuber V (2019) The effect of alterations of schizophrenia-associated genes on gamma-band auditory steady-state responses. Poster presented at OCNS.
- Karni G. and Metzner C., (2020) A Cortical Model Examining Mismatch Negativity Deficits Under Schizophrenia-Linked Variants. Presented via a short talk at Neuromatch 1.0.

PROFESSIONAL EXPERIENCE

Research Intern, Neuroimaging Lab, IBM Research.   Yorktown Heights, NY, USA. Summer 2019

- Developed a mixed-data, multi-input neural network predicting conversion to psychosis among subjects at clinical high-risk using various data types.
- Analyzed structural data (MRI) using partial correlations to identify early biomarkers of psychosis.
- Presented novel, clinically-interpretable, significant results. A manuscript is currently in draft form.

Research Assistant, Neural Information Processing Lab, TU-Berlin.   Berlin, Germany. 2018-2019

- Developed a biophysically detailed model of cortical predictive coding - allowing to explore Schizophrenia-linked genetic variants on perceptual learning.
- Optimized model's runtime using parallelization frameworks and public/private multi-core servers.

Data Science Intern, XRHealth LTD.   Tel Aviv, Israel. Summer 2018

- Devised and developed an ETL pipeline, increasing analysis-available data from VR platforms by 50%.
- Implemented statistical metrics in models delivering real-time medical insights to patients and therapists.

Data Analysis Intern, Reali inc.   San Mateo, CA, USA. Summer 2017

- Designed and developed an NLP model, identifying customer intent from incoming chat messages.
- Delivered a production-ready python web system with training pipeline and dashboards.

First Lieutenant, Unit 8200, Israeli National Intelligence Agency.   Israel. 2013-2015

- Led a team of eight analysts, pursuing cyber missions in the defense and security realms.
- Awarded the Colonel Certificate of Excellence for Leadership in the organization.

SKILLS & ACCOMPLISHMENTS

Technical skills: Python (Machine Learning, Statistical and Mathematical Modeling, Data Visualization, WebDev), R, NEURON, FreeSurfer, AFNI, SQL, Tableau, MongoDB, NLP (RASA, DialogFlow), git, Docker.

Achievements:

- Israeli National Judo Champion & A member of the National Team   2008 - 2011
- Graduated the Air Crew Officers School, Israeli Air Force, with the level of a platoon commander.   2013

Research interests: Human intelligence, Cognitively-inspired Algorithms and Models, Computational Psychiatry, Reinforcement Learning