Joshua Shay Kricheli

Phoenix, AZ, USA | skricheli2@gmail.com | 14809136199 | shay-kricheli | krichelj | krichelj.github.io

Academic Education

2023-2027 - Philosophy Doctor (Ph.D.), Computer Science — **Arizona State University, Tempe, Arizona, USA**
Neuro-symbolic AI V2 Lab, advised by Prof. Paulo Shakarian — *Expected graduation in 2027*

2019-2022 - Master of Science (M.Sc.), Computer Science — **Ben-Gurion University of the Negev, Israel**
AI Major, advised by Prof. Gera Weiss and Prof. Shai Arogeti — *Graduated, GPA: 92.26/100, Thesis grade: 94/100*

2014-2018 - Bachelor of Science (B.Sc.), Mechatronics Engineering — **Ben-Gurion University of the Negev, Israel**
Control Systems, Mechatronics and Robotics Major — *Graduated, GPA: 84.74/100, Senior GPA: 89.52/100*

Occupational Experience

NeuroSymbolic AI Research Associate — **Tempe, Arizona, USA**
Arizona State University (ASU) — *2023-Present*

- Conducting research in one of the frontier fields of Computer Science, fusing neural networks with explainable rigorous logic
- Supervising a group of graduate and undergraduate students engaged in tasks such as data mining, analysis, coding, and testing

AI/ML Researcher and Teaching Assistant — **Beer Sheva, Israel**
Ben-Gurion University of the Negev (BGU) — *2020-2023*

- Authoring and presenting a peer-reviewed paper at *MED 2021*, an international control and robotics conference
- Developed a novel, open-source Python package called *PyDiffGame*, implementing the method suggested at the article
- Acting Teaching Assistant at CS undergraduate courses; *Intro to Computer Science* and *Principles of Programming Languages*

Data Scientist — **Beer Sheva, Israel**
Dell Technologies — *2019-2022*

- Working with a diverse team of data scientists, consultants and engineers from various locations; Israel, USA India and Slovakia
- Worked 6 months on a Jira tickets duplication use case implemented by evaluating similarities between possible candidates
- Developing more than 20 data science pipelines used to implement, manage and display results of data science projects
- Implemented use cases: Time Series modeling, Explanatory Data Analysis (EDA), Wordcloud, Topic Modeling, Chatbot, Video transcription, Question answering, Graphical organization modeling, Churn prediction and other management and HR tools
- Coding mostly using Python with packages such as PyTorch, TensorFlow, NumPy, Polars, Pandas, SciPy, etc.
- Taking action; presenting various demonstrations of the designed tools, running workshops, presenting at seminars

Computer Chips Manufacturing Process Engineer — **Kiryat Gat, Israel**
Intel Corporation — *2018-2019*

- Observing Intel's intricate chip manufacturing procedures from a statistical standpoint to identify and analyze system functionality
- Detecting design and process anomalies, analyzing performance metrics, reporting deficiencies, and validating their corrections

Publications, Fellowships, Scholarship and Awards

Ph.D. '*Global Security Initiative*' Full 4-Year Funded Exchange Program
ASU fellowship for security-focused research improving capabilities for high-profile national security — *2023-2027*

M.Sc. '*Israel Data Science Initiative*' & German '*Helmholtz Data Science Academy*' Funded Exchange Program
Deep Science research at 'Deutsches Zentrum für Luft und Raumfahrt' (DLR) - German Aerospace Center — *2022*

Conference Article, 1st Author; 29th Mediterranean Conference on Control and Automation ('MED'), Bari, Italy
Composition of Dynamic Control Objectives Based on Differential Games — *2021*
Joshua Shay Kricheli, Dr. Aviran Sadon, Prof. Shai Arogeti, Shimon Regev and Prof. Gera Weiss

M.Sc. '*Israeli Smart Transportation Research Center*' ('ISTRC') Excellence Scholarship
Technion and Bar-Ilan program with Israel's Prime Minister's Office and Council for Higher Education — *2020-2021*

M.Sc. '*Agricultural, Biological and Cognitive*' ('ABC') Robotics Full 2-Year Fellowship
BGU fellowship for innovative robotics masters research students admitted as teaching assistants — *2019-2021*

B.Sc. Final Engineering Project - Awarded A Certificate of Excellence
SNIC Bifurcation and its Application to MEMS, advised by Dr. Oriel Shoshani — *2017-2018*

B.Sc. '*Education for Excellence*' 1-Year Fellowship
Israeli foundation for educating unequally represented children toward academic and personal excellence — *2015-2016*

B.Sc. '*Israel Scholarship Education Foundation*' ('ISEF') 3-Year Full Fellowship
Academic excellence and leadership fellowship funded by investors from the United States — *2014-2017*

B.Sc. Tel-Aviv University (TAU) 4-Year Full Scholarship
Full engineering degree academic scholarship granted by Tel-Aviv University, Israel — *2014-2018*

B.Sc. Israeli Ministry of Education 2-Year Scholarship
Bachelor students funding program issued by the Education Ministry office in the Israeli government — *2014-2016*

Pre-Engineering '*Achievements for Hi-Tech*' Program Full 1-Year Fellowship
Israeli government funding program for excellent honorably discharged soldiers from the IDF — *2013-2014*

Additional Qualifications

- Familiar programming languages by descending order: Python, Java, TypeScript, Matlab, C++ and C
- Familiar environments: HTML, SQL, Bash and Kubernetes