Shahaf Dan

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Experienced and aspiring Data Scientist and an AI enthusiast. Interested in learning and growing in the "virtual" world of Data Science, Machine Learning, and Artificial Intelligence. Seeking **full-time opportunities starting May 2023.**

EDUCATION

Boston University ○ MS Artificial Intelligence (**PART TIME** - will not interfere with full-time employment)   2023 - 2024
- Natural Language Processing, Computer Vision, Data Science, Machine Learning, Deep Learning, and Artificial Intelligence.
- Working toward R&D publications surrounding AGI, Deep Learning models, GPT Technology, and object segmentation.
- Course Assistant for Principles of Machine Learning (CS542).

Boston University ○ BA Computer Science   2020 - 2023
- Python, Machine Learning, AI, Data Science, Statistics & Probability, Algorithmic Analysis, Software Engineering, OCaml.
- Capstone Project: Used Python's SpaCy for NLP sentiment analysis over Twitter streaming data, fetched with Apache Spark.
- Activities: Alpha Epsilon Pi (President), Student Government (Treasure), TAMID Consulting Group (VP of Tech)

Las Positas College ○ AS Computer Science, AS Physics, AA Mathematics   2018 - 2020
- C++, PHP, Assembly, Data Structures, Computer Architecture, Databases, SQL, Calculus & Diff. Equations, Linear Algebra.
- Capstone Project: The Market Manager. Designed full-stack software to automate the registration, volunteering, and inventory tracking of the market - a monthly grocery distribution event (SQL, PHP, JavaScript, HTML, CSS, AJAX, PDO)
- Activities: Alpha Gamma Sigma (President), Student Government (Events Director), CS Club (VP), Chess Club (President)
- **CS Dept. Scholar**, **Honors Certificate** (conducted 6 faculty-approved research projects), **Dean's List**, **Highest Honors**.

CERTIFICATES

[MIT Professional Education](#) ○ **Applied Data Science Certificate**   December 2022
- A 14-week accelerated boot camp covering in-depth Data Science topics, with engaging projects, live lectures, and quizzes.
- Regression/Classification, Statistical Modeling, Machine Learning, CNNs, RNNs, Pandas, Keras, TensorFlow, SciKit-Learn.
- Capstone Project: Developed a supervised Keras CNN model to classify cells' images as parasitized (Malaria) or uninfected.

[IBM (Coursera)](#) ○ **AI Engineering Certificate**   November 2022
- A 6-course online program covering ML and AI Engineering topics with daily assignments, videos, and programming tasks.
- Neural Networks, Deep Learning, Image Recognition, Object Detection, Computer Vision, OpenCV, PyTorch, Watson Studio
- Capstone Project: Developed a supervised Object Detection model to detect the presence of stop signs in images (OpenCV).

WORK EXPERIENCE

Rhodium Enterprises ○ *AI Engineering Intern*   April 2023 - August 2023
- Writing Jupyter Notebook to implement predictive ML models to optimize mining times based on environmental conditions.
- Working in an agile framework to develop Deep Learning PyTorch models to forecast time-series mining efficiency.
- Working with a research team to develop statistical modeling dashboards to present ML model-based real-time analysis.

Hindsight Technology Solutions ○ *Machine Learning Engineering Intern*   January 2023 - April 2023
- Worked on NLP (SpaCy) engine implementation on AWS cloud services for web-scrapped text analysis.
- Created PoC for a recommender model and collaborated with engineers to design code for a reliable deployment pipeline.
- Boosted prediction speed for large datasets by developing a multi-layer clustering algorithm to group web pages, which reduces prediction complexity from $O(k)$ to $O(\log k)$ while maintaining a high accuracy level of 91%.

Boston University ○ *Artificial Intelligence Research Assistant*   January 2023 - August 2023
- Working with Prof. Dokyun Lee toward a publication: AI models to operationalize creativity in AI-generated artifacts.
- Working with Prof. Iddo Drori toward a publication: generative AI pipeline to write CS and Math books using GPT-4.
- Developing TensorFlow and PyTorch ML models for various research projects, based on SOTA academic research products.

IdeaTrek ○ *AI Ethics & Innovation Fellow*   January 2023 - May 2023
- A weekly cohort provides students with interest in Artificial Intelligence to meet and discuss the industry's current trends and rapid changes, while reviewing the ethics of innovation in the AI world, surrounding SOTA products.
- At the end of the fellowship, each participant is required to submit a research paper about the future trends of technological advancements, the ethics of embedding AI technology into industrialized tools, and the exploration of innovation in the field.

AlgoTrade ○ *Data & Machine Learning Engineer*   June 2022 - October 2022
- Developed Python scripts to generate statistical models on mass stock-option data collected over different strategies.
- Created PySpark ELTL pipeline from a streaming Interactive Brokers API to SQL database (Apache Spark, AWS RedShift)
- Designed a Deep Learning model to predict the best option bundle purchase choices based on collected mass data.

Spark! ○ *Data Science & Software Engineering Intern*   January 2021 - May 2022
- Structured data ETL pipelines to map multi-sourced data (APIs, DBs) into an accessible and unified structure using Python.
- Designed Machine Learning models for classification/regression/clustering to predict desired insights from mass data.
- Worked on EDAs using Python (Pandas, NumPy, Matplotlib) and generated user-friendly business insights (Tableau).

SkillWaze ○ *Software Engineer Intern*   June 2019 - August 2019
- Structured a data pipeline to integrate survey responses into an Entity-Relational MySQL database model using JDBC.
- Worked on the company's software service's back-end using Java and SQL queries.

Amber System Technologies ○ *Software Engineer Intern*   September 2018 - April 2019
- Integrated a web application with Point-Of-Solution system databases to provide online purchase capabilities..
- Developed application templates based on client-specified needs using HTML, CSS, JS, AJAX, jQuery, and various libraries.
- Designed PHP data-query SQL scripts using the PDO protocol to manipulate and analyze mass data.

LEADERSHIP & EXTRACURRICULARS

Alpha Epsilon Pi ○ *President*   May 2021 - May 2022
- Spearheaded the most successful recruitment, philanthropy, alumni relations, and campus representation academic year.
- Oversaw weekly chapter and board meetings, managed a $50,000 annual budget, and developed a detailed yearly schedule.
- facilitated external relationships with nationals, sponsors, on-campus organizations, and the university's administration.

BU Student Government ○ *Executive Board Treasure*   May 2021 - May 2022
- Oversaw all financial operations of the Boston University student body, student government, and governing executive board.
- Structured an annual budget, optimally allocating over $200,000 in student funds toward various activities and initiatives.
- Developed a spreadsheet-based software to optimize budget allocations based on past-year collected financial data, using SQL, ML algorithms, and a self-developed user-friendly interface.

TAMID Consulting Group ○ *Director of Tech, Project Manager*   May 2021 - December 2021
- Served as a Project Manager, working with Israeli startup company prody.me to develop a statistical dashboard of CPG products. This included weekly meetings with the company's CTO and CEO, structuring a semester-long milestone plan, managing a team of 7 students to deliver the desired product, and developing the product along with the team.
- Served as Director of the Technology track at the TAMID consulting group - an organization aiming to pair BU students with Israeli startups to assist in product development and tech consulting.
- Lead a series of workshops and lectures on relevant technologies such as Python scripting, ML algorithms, full-stack development, agile framework decorum, SQL, and data analysis.

BU FinTech Club ○ *Director of Quant*   December 2020 - May 2021
- Developed a series of lectures to business and CS students about FinTech technologies and tools, including LSTM applications to stock time-sequenced data, pandas and data manipulation, SQL queries, and spreadsheet implementation.
- Networked with various leaders in the industry to ensure an inviting environment for students, optimize learning outcomes, and create a series of guest speakers to help students integrate into the industry.

LPC Student Government ○ *Executive Board Events Director, Senator*   November 2018 - May 2020
- Led the events committee to create 7 new events, increasing student events and extracurricular participation by 283%.
- Represented the school at the American Student Association of Community Colleges in D.C. (2019, 2020) and met with legislative offices to push for new legislations and initiatives to enhance the student experience in community colleges.

- Served as the school's delegate to the country's technology committee - providing feedback on student technological services and proposing beneficial changes, relying on collected student feedback.

Alpha Gamma Sigma Honors Society ○ *President*   May 2019 - May 2020
- Oversaw and spearheaded all general activity including fundraisers, community service, and student academic enhancement.
- Lead the 100-member chapter's weekly meetings and executive board's bi-weekly meetings to follow a goal-oriented plan.
- Facilitate external relations with other campus organizations, the student life office, the school's administration, and other chapters.

Computer Science Club ○ *Vice President*   May 2019 - December 2020
- Lead a series of workshops and lectures to students on relevant topics and technologies such as PHP scripting, metadata management, SQL and PHP scripting, React.js, and assembly programming.
- Assisted the President in establishing a semester-long plan to attract the most students to the newly founded club, including field trips to Meta's HQ in Menlo Park, CA, and AEye's offices in Dublin, CA.

Chess Club ○ *Founder, President*   September 2018 - May 2020
- Founded and served as the president of the Las Positas College Chess Club.
- Increased club membership from 8 members to 42 over the span of 3 semesters.
- Chaired the weekly meetings and led bi-weekly presentations on chess strategies and generalized game theory.
- Lead the team to compete against various other schools in Northern California, including Berkeley, Stanford, and Davis.

SKILLS

● Python	● PHP	● C++	● Java	● JavaScript
● HTML	● CSS	● SQL	● MongoDB	● Git
● React.js	● Node.js	● PyTorch	● TensorFlow	● Keras
● SciKit-Learn	● PySpark	● NLTK	● SpaCy	● Pandas
● NumPy	● CV & NLP	● Neural Networks	● Agile	● Scrum
● AWS	● Linux	● MacOS	● Assembly	● LaTeX