

SARAH MISHEL LECHTSER

Head of R&D • Software
Engineer • Physics

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 Tel Aviv, Israel

 LinkedIn Profile

SKILLS

Data Engineering

Python & C++

Cloud Infrastructure

Cybersecurity

Full-Stack Development

Machine Learning & AI
Systems

Team Leadership

Research & Analytics

Hardworking

Fast Learner

HONORS & AWARDS

Best Technological Project
IDF Communication Force (2018)

Dean's List
4 semesters at Technion
Top 5 in class

ABOUT ME

Science has been my driving force, especially **understanding complex systems and turning that understanding into real-world impact**. I bring together skills from **physics, software engineering, and data science** to approach problems from multiple angles. I am a **team player**, love collaborating with others and sharing knowledge to achieve common goals. I'm **highly motivated and hardworking**, always eager to dive into new challenges and learn something new.

EXPERIENCE



Director of Research Development

Fijoya — Founding Team

Jul 2023 – Present | Health tech, Fintech

Director of Research Development (Dec 2025 – Present) · Team Lead - Founding Team (Jun 2024 – Dec 2025) · Software Engineer - Founding Team (Jul 2023 – Jun 2024)

- ▶ Led and developed Fijoya's **core AI, data and payment infrastructure**, including **large-scale systems** for wellness and healthcare-related domains
- ▶ Architected and designed **production-ready AI solutions** including a **personalized recommendation engine**, web crawlers for health and wellness content, and **conversational AI systems**
- ▶ Led **cross-functional teams** through development of complete **AI-enhanced mobile and web applications**, from backend systems to data infrastructure
- ▶ Managed **technical leadership** and cross-team coordination to balance innovation with sustainable development practices



Data Engineer Developer

BitSight

2022 – 2023 | Cybersecurity

- ▶ Developed **complex data ingestion pipelines** and analytical frameworks for **large-scale network behavior and security data**, building **resilient systems for high-volume processing**
- ▶ Designed orchestrated workflows using **Apache Airflow** and built **CI/CD infrastructure** with **Docker, Kubernetes, and CircleCI**
- ▶ Built **cloud-based infrastructure** using **AWS (S3, IAM, ECR)** and **Terraform** for scalable data operations



Teaching Assistant

Technion Institute of Technology

2022 | Haifa, Israel

- ▶ Teaching staff in undergraduate course Electricity and Magnetism; supported students in understanding foundational physics concepts related to electromagnetism

VOLUNTEERING

Technical Team – Mashkiot (2025)

Manage organization's technical operations and infrastructure support

Big Brother (2022)

Volunteering and mentorship support

Etgarim – Surfing with People with Disabilities (Present)

Adaptive surf coaching for individuals with disabilities

TECHNOLOGIES

Python • C++ • Node.js • React Native • PySpark • Machine Learning • AI Systems • LangGraph • Apache Airflow • Docker • Kubernetes • AWS • GCP • Firebase • Terraform • Splunk • Elasticsearch • CI/CD • MATLAB

LANGUAGES

Hebrew: Native
English: Fluent
Russian: Conversational



Cybersecurity Researcher & Detection Engineer

Mamram Unit, IDF

2017 – 2019

- Developed machine learning models using PySpark for anomaly detection in high-volume network data, creating advanced metrics to identify temporal patterns and suspicious network relationships
- Conducted incident investigations using Neo4j for graph analysis, Splunk for log correlation, and Elasticsearch for threat hunting—analyzing network breaches and security events detected by monitoring systems
- Built analytical tools in C++ and Python for behavioral analysis and signal processing of complex incident patterns
- Led research projects on attacker behavior and honeypot systems, demonstrating hypothesis-driven development and experimental methodology



Red Team Penetration Tester

Mamram Unit, IDF

2015 – 2017

- Conducted simulation-based vulnerability assessments of systems and human-in-the-loop processes
- Designed and executed custom attack vectors to probe organizational security posture and incident response efficacy

EDUCATION



Bachelor of Science in Physics

Technion Institute of Technology, Haifa, Israel

2019 – 2022 | GPA: 87.23 | Dean's List for four semesters (Top 5 in class)

Key Projects:

- Optical Tweezers for Quantum Simulation: Developed SLM-based optical trapping systems for ultracold fermi gas experiments.
- Tensor Network Algorithms for Quantum Computing: Explored the efficiency of tensor network algorithms for quantum computing.
- Catalyst Surface Modeling via Spatially-Resolved Kinetic Monte Carlo: Applied stochastic modeling methods to study catalyst surface dynamics.

Professional Training

2015 – 2019

- Cyber Defender Course: 1120 hours, IDF
- Expert Red Team Hacking: John Bryce College
- C Defense and Attack: John Bryce College
- C++ Programming: HackerU
- PySpark for Data Analysis: Matzov Unit, IDF