Bar Lerer

http://www.barlerer.com

Email : barlerer@gmail.com
Mobile : +972524322366

Education

- **Ben-Gurion University of the Negev** — Beer Sheva, Israel
  Master of Science in Computer Science; GPA: 95 — *Oct. 2021 – Jul. 2023*
  Research topic: Using Deep Learning to solve the Helmholtz equation
- **Delft University of Technology** — Delft, Netherlands
  Bachelor of Science in Computer Science and Engineering; Israeli GPA: 86 — *Sep. 2018 – Sep. 2021*

Experience

- **Cadence Design Systems** — Petah Tikva, Israel
  Software Engineer — *Apr 2023 - Present*
  - Collaborating with multiple teams across the company to innovate and develop cutting-edge products
  - Incorporating and enhancing AI solutions in current products to improve efficiency.
- **Ben-Gurion University of the Negev** — Beer Sheva, Israel
  Teaching Assistant — *Oct 2021 - Sep 2023*
  - **Courses**: Foundations of Software Engineering, Workshop on Software Engineering Project
- **Delft University of Technology** — Delft, Netherlands
  Teaching Assistant — *Sep 2020 - Sep 2021*
  - **Courses**: Big Data, Software Engineering Methods, Software Project
  - Assessing the performance of students.
  - Supporting students with their coursework by offering valuable feedback
  - Assisting lecturers in creating and assessing tests
- **The Web Information Systems Research Group (TU Delft)** — Delft, Netherlands
  Research Engineer — *Jul 2020 - Jun 2021*
  - Developed Dandelion, a crowd computing chatbot, connecting researchers at TU Delft and students
  - Designed a micro-service system architecture, built according to research specifications and with scalability in mind to allow for more than 20,000 students to use the service
  - Using NLP techniques for personalized conversations, and using a RabbitMQ for a robust communication protocol between servers and users
- **KPMG** — Rotterdam, Netherlands
  Software Engineering Internship — *Apr 2020 - Jul 2020*
  - Developed a frictionless CAPTCHA solution that is privacy-minded
  - Created deployment pipeline, running static analysis, unit and integration tests and continuous deployment of Docker containers to Microsoft Azure
  - Built an extensive back-end service using Flask, Redis and PostgreSQL, which employs heuristic estimations to evaluate humans from bots

Awards

- **Dean's list for academic performance, 2023**: Ben-Gurion University of the Negev

Publications

- **Multigrid-Augmented Deep Learning Preconditioners for the Helmholtz Equation using Compact Implicit Layers**: Lerer, B., Ben-Yair, I., & Treister, E., SIAM Journal on Scientific Computing Copper Mountain Special Section on Multigrid Methods 2023. [Online]. Available: https://arxiv.org/abs/2306.17486
- **An Exploratory Study on Conversational Agents Using Dynamic Conversation Styles**: B. Lerer, TU Delft Research Repository, 2021. [Online]. Available: http://resolver.tudelft.nl/uuid:710f265b-113d-4b72-ba4b-b89be44e360f

Programming Skills

- **Languages**: Python, Java, Scala
- **Frameworks**: PyTorch, Numpy, pandas, scikit-learn, Flask, Django
- **DevOps**: Docker, CI/CD, Linux, Git