

Bar Lerer

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EDUCATION

- **Ben-Gurion University of the Negev** Beer Sheva, Israel
Master of Science in Computer Science; GPA: 95
Research topic: Using Deep Learning to solve the Helmholtz equation
Oct. 2021 – Jul. 2023
- **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
 - Integration and development of AI solutions onto existing products for higher 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
 - Evaluating students' performance
 - Assisting students with course work while providing constructive 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