# Michael Hassid

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#### **CURRENT**

**Hebrew University of Jerusalem** – PhD Candidate in Computer Science (third year) **Meta AI (FAIR)** – Research Assistant

#### **EDUCATION**

## 2022 - Present: Hebrew University of Jerusalem - PhD in CS

- Research Advisors: Prof. Roy Schwartz and Dr. Yossi Adi
- Main research topics:
  - LLM reasoning and planning for math and code generation
  - o Efficient mechanisms for LLMs
  - o Speech language models (SpeechLMs)
- Publication presented in the second page

#### 2020 - 2022: Hebrew University of Jerusalem - MSc. in CS (excellence program)

- Final GPA: 98.19
- Honors: cum laude
- Research Advisor: Prof. Roy Schwartz
- Main research topic: Attention Mechanisms for NLP

#### **2016 - 2019: Hebrew University of Jerusalem -** BSc. in CS (excellence program)

- Honors: summa cum laude
- Final GPA: 97.22

#### **EXPERIENCE**

#### 2022 - Present: Meta AI, FAIR - Research Assistent (PhD program)

- Research topics:
  - o LLM Reasoning in semantic space
  - o Code generation with LLMs
  - Speech language models (SpeechLMs)

#### 2023 - 2024: Hebrew University of Jerusalem - Lecturer

• Lecturer of the "Advanced Natural Language Processing (ANLP)" course

#### **2020 - 2022: Google,** Cerebra - Research Intern (Full & Part time internship)

- ML driven solutions for real life tasks (mainly research, some production work):
  - o Main research: NLP, TTS
  - Research publication and approved patent

## 2019 - 2020: Google, Search Console - Software Engineer (Part time internship)

- SAN Insights Provider: Generating insights for Search Console users
  - o Project is deployed in Search Console

#### 2017 - 2019: Hebrew University of Jerusalem - Teacher Assistant

• Teacher Assistant; "Introduction To Computer Science" course

#### **AWARDS**

Meta AI- PhD excellence program (PhD) KLA scholarship for excellence (PhD) Graduated cum laude (MSc.) Computer Science excellence program of HUJI (MSc.)

Ulman scholarship for excellence students (MSc.)

Graduated summa cum laude (BSc.)

Computer Science excellence program of HUJI (**BSc.**)

Dean's List: 2017 (Bsc.), 2018 (Bsc.), 2020 (MSc.) Dean's Award: 2018 (Bsc.), 2020 (Msc.)

#### **SKILLS**

Research & Work experience with  $\mathbf{ML}$  methods (specifically Deep Learning).

Deep understanding of **LLMs** (from high level to code)

Experience with Deep Learning frameworks: PyTorch, TensorFlow and Jax.

#### **MORE**

Psychometric Grade: **726** Matriculation Examination ("Bagrut") GPA: **114.3** 

#### **HOBBIES**

Spoken Word poet (Poetry Slam) - search on YouTube - "מיכאל הסיד".

References available upon request.

#### **PUBLICATIONS (Google Scholar)**

M. Hassid, T. Remez, ..., R. Schwartz, Y. Adi Textually Pretrained Speech Language Models

Advances in Neural Information Processing Systems 2023 (NeurIPS 2023). Arxiv

M. Hassid\*, T. Remez\*, J. Gehring, R. Schwartz, Y. Adi The Larger the Better? Improved LLM Code-Generation via Budget Reallocation Conference On Langiage Models 2024 (COLM 2024). Arxiv

M. Oren\*, M. Hassid\*, N. Yarden, Y. Adi, R. Schwartz Transformers are Multi-State Rnns Empirical Methods in NLP 2024 (EMNLP 2024). Arxiv

M. Hassid, G. Synnaeve, Y. Adi, R. Schwartz Don't Overthink it. Preferring Shorter Thinking Chains for Improved LLM Reasoning

Don't Overthink it. Preferring Shorter Thinking Chains for Improved LLM Reasoning Under Review. <u>Arxiv</u>

M. Hassid, H. Peng, D. Rotem, J. Kasai, I. Montero, N. Smith, R. Schwartz How Much Does Attention Actually Attend? Questioning the Importance of Attention in Pretrained Transformers

Findings of Empirical Methods in NLP 2022 (EMNLP 2022). Arxiv

M. Hassid, M. Tadmor, B. Shillingford, M. Wang, Y. Jia, T. Remez.

More than Words: In-the-Wild Visually-Driven Prosody for Text-to-Speech

Conference on Computer Vision and Pattern Recognition 2022 (CVPR 2022). Arxiv

D. Rotem, **M. Hassid**, J. Mamou, R. Schwartz **Finding the sweet spot: Analysis and improvement of adaptive inference in low resource settings** 

Association for Computational Linguistics 2023 (ACL 2023). Arxiv

G. Maimon, M. Hassid, A. Roth, Y. Adi Scaling analysis of interleaved speech-text language models Conference of Language Models 2025 (COLM 2025). <u>Arxiv</u>

T. Ghattas, M. Hassid, R. Schwartz On Pruning State-Space LLMs Empirical Methods in NLP 2025 (EMNLP 2025). Arxiv

S. Levy, N. Mazor, L. Shalmon, M. Hassid, G. Stanovsky More Documents, Same Length: Isolating the Challenge of Multiple Documents in RAG Findings of Empirical Methods in NLP 2025 (EMNLP 2025). Arxiv

TA. Nguyen, ..., M. Hassid, ..., E. Dupoux Expresso: A benchmark and analysis of discrete expressive speech resynthesis Interspeech 2023 (Interspeech 2023). Arxiv

M. Treviso, ..., M. Hassid, ..., R. Schwartz

Efficient methods for natural language processing: a survey

Transactions of the Association for Computational Linguistics (TACL). Arxiv.

M. Hassid, S. Caduri, N. Bar, D. Cohen, B. Schlesinger, M. Tadmor Method and system for text-to-speech synthesis of streaming text WO Patent 2,022,093,192