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## META DATA

**Programming:** Python, Js/Ts, Java/Kotlin, Fortran 90/95, C++, C, Bash, R, HTML, Matlab, Julia, Scheme
**Data:** RDS, Redshift, MongoDB, Redis, DynamoDB, Elasticsearch, S3, Neptune, Neo4J
**DoD Clearance:** Top Secret/SCI (last verified June 2020)

## EDUCATION

**University of Connecticut** Fall 2021 - Present
**PhD** in Computer Science - **RIET Lab** under Prof. Shiri Dori-Hacohen

- Built pipeline for on-premises twitter data-lake that is used for ad-hoc investigations into disinformation
- Devised a language model optimization scheme for Claim-Matching that assists our non-profit fact-checking partner Meeden that also placed first in CLEF CheckThat! 2022 Competition [1]. Open sourced pytorch codebase for freeuse and reproducibility
- Currently researching argumentation-based tasks like Claim Extraction and Relation Classification to further enhance automated campaign classification and detection

**University of Massachusetts Amherst** May 2018
**B.S.** in Computer Engineering; **B.S.** in Mathematics (Applied Track)
GPA: **3.97** **Summa Cum Laude**

## INDUSTRY EXPERIENCE

**Amazon – Software Developer Engineer II (L5)** Summer 2020 – Summer 2021
**Data Dive Team (Alexa):**

- Designed data pipelines and service architectures while articulating them to peers and managers in open forum reviews
- Led project to rewrite an open source BI tool to handle Red/Critical data in a secure and scalable fashion
- Worked with customers to determine and build dashboarding functionalities that would save them dev time
- Developed and maintained internal services needed for research scientists to efficiently access and query Alexa data

**Systems & Technology Research (STR) – Machine Learning Researcher** Spring 2018 – Summer 2020
**Key Projects:**

- **Understanding Dynamics in Groups – Tensorflow, PyTorch** (NLP, Graph, RL)
  - Designed a language model to classify stubbornness and suspiciousness from dialogue
  - Wrote a context dependent text-generator using both MLE and adversarial training regimes
  - Developed an RNN with a GPT2 backbone that works on threads and dynamically learns author embeddings
  - Presented research results to government stakeholders at DARPA (**Program Link**)

- **Physically Realizable Adversarial Attacks – Tensorflow, PyTorch** (CV)
  - Developed a pipeline to perform Expectation-of-Transformation (EoT) attack experiments in a variety of domains
  - Demonstrated that Black Box settings can still work in an EoT setup that is physically realizable
  - Created internal tool to perform feature and model visualizations that helped understand experiment results
  - Fooled both state-of-the-art Object Detectors and Classifiers with physical attacks

- **Event Detection in the Middle East – Tensorflow** (CV, NLP, Graph)
  - Applied computer vision techniques to learn representations of geolocations based on recorded event data
  - Used both probabilistic and neural NLP techniques to draw and extract relevant information from tweets
  - Implemented Graph based deep learning approaches to handle non-uniform quantization of positions
  - Presented research results to government stakeholders at IARPA (**Program Link**)

[1] S. D.-H. Michael Shliselberg, RIET Lab at CheckThat! 2022: improving decoder based re-ranking for claim matching, in: Working Notes of CLEF 2022 - Conference and Labs of the Evaluation Forum, CLEF '2022, Bologna, Italy, 2022.

**Additional notes on side projects, undergraduate research, coursework on my site: *mshlis.github.io***