

# Tovly Deutsch

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## EDUCATION

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### Harvard University

Cambridge, MA

A.B. in Computer Science and Linguistics

May 2020

**Honors:** Magna Cum Laude in Field (GPA: 3.92). High Honors. John Harvard Scholar.

**Thesis:** [Linguistic Features for Readability Assessment](#)

**Coursework:** Advanced Machine Learning (graduate), Computational Photography

## EXPERIENCE

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### Meta

#### IC5 Software Engineer, Portal AI & Reality Labs

Sep 2020 - Present

- Contributed to computer vision features along all stages of development, including data collection, annotation, model experimentation, and integration into mobile and cloud hardware.
- Influenced hardware and product roadmaps by creating computer vision system prototypes.
- Developed and optimized scene understanding AI and computer vision pipelines.
- Lead E2E testing, developer experience, and deployment efforts for a cloud rendering service.
  - Reduced breakages by developing infrastructure for simultaneous headset and server E2E tests.
  - Halved time per iteration via a parallelized Rust CLI which simplified multi-step workflows.
  - Rewrote build infrastructure for 1-click deployment and simple validation of deployed contents.
- Architected and implemented a client-aggregated logging system for privacy-sensitive features.
- Developed a Rust-based node agent for a realtime client-server session management system.
- Prototyped bringing ML-based features to browsers using WASM and WebGL.

### Facebook

Menlo Park, CA

#### Software Engineer Intern

May – Aug 2019

- Expanded Oculus referrals by exposing on multiple surfaces and native share sheets.

### Etsy

New York, NY

#### Software Engineer Intern

Jun – Aug 2018

- Created a customer photos viewer shown on every product page.

## SELECTED PUBLICATIONS

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**T. Deutsch**, M. Jasbi, S. Shieber

#### [Linguistic Features for Readability Assessment](#)

*15th Workshop on Innovative Use of NLP for Building Educational Applications (ACL 2020)*

A. Saleh, **T. Deutsch**<sup>\*</sup>, S. Casper<sup>\*</sup>, Y. Belinkov, S. Shieber

#### [Probing Neural Dialog Models for Conversational Understanding](#)

*Oral Presentation. Second Workshop on NLP for Conversational AI (ACL 2020)*

## SELECTED PROJECTS

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#### [Learning Constraint Rankings with Sequence to Sequence Models](#)

Oct – Dec 2019

#### [Analyzing Phonological Surfeit of the Stimulus in Neural Models](#)

Mar – May 2020

## TECHNICAL SKILLS

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**Technologies:** C++, Python, Rust, Java, Kotlin, PyTorch, TensorRT, Typescript, Javascript, PHP