

# SEBASTIAN PRETZER

## Education

### **MS Northwestern University**

Computer Science

*Expected June 2019*

### **BA Northwestern University**

Computer Science

*Expected June 2018*

## Skills

Python, TensorFlow, Swift,  
HTML, CSS, JS, C++, LaTeX, Excel

## Coursework

Statistical Language Modeling  
Natural Language Processing  
Deep Learning Foundations  
Artificial Intelligence Programming  
Intelligent Information Systems  
Machine Learning  
Internet of Things  
Human Computer Interaction

## Contact

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## Experience

### **WebSAIL**

*Research Assistant, January 2018 - Present*

- Investigated the effectiveness of word embeddings in generative models of dictionaries
- Improved on Definition Modeling to include parts-of-speech and context

### **Backlight Resumes**

*Researcher, June 2017 - Present*

- Developed a deep learning model to autonomously optimize a client's resume
- Modified Google's Neural Machine Translation System for translation of unedited resumes to edited ones

### **NU Electrical Engineering and Computer Science**

*Peer Mentor, March 2017 - June 2017*

- Assisted CS professors in teaching and grading courses
- Held office hours and discussion to guide students

## Projects

### **Pathology Report Extractor**

- Built end-to-end system to extract cancer information from unstructured pathology reports from the Genomic Data Commons
- Implemented an OCR, spell-checker, Grakn's knowledge graph, and HazyResearch's Snorkel information extraction model

### **Crowd Density Monitoring**

- Led team to build a doorway sensor to monitor people entering and exiting a space, such as a cafeteria, library, etc.
- Applied machine learning techniques to data to try to detect patterns in movement in and out of rooms

### **Impact of Modern NBA Positions**

- Manipulated player statistics to cluster NBA positions that do not coincide with the traditional 5 positions
- Found insights into combinations of positions and their impact on plus/minus scoring