# Parsa Mazaheri

**♀** Mountain View

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I'm an NLP Graduate student at UC Santa Cruz. I have 2.5 years of experience as a Software Engineer and 1 year of research experience in Machine Learning. I am passionate about Deep learning and Software Engineering.

#### **SKILLS**

**Programming Langs:** Python, Java, C++, goLang

Al: Pytorch, OpenCV, NLTK, Numpy, Pandas, Spacy, NLTK, MatplotLib, Transformers, encoder-decoder, BERT, Object detection, GPT3, Machine Translation, YOLO,

Software: Lambda, S3, DynamoDB, Redshift, RDS, Django, FastAPI, echo-go, Django-Resk-Framework, RestAPI, React

Tools: PostgreSQL, MySQL, MongoDB, Redis, Kafka, Git, Docker, Jira, Kubernetes, Grafana, Sentry, ci/cd

## **EDUCATION**

#### MS Natural Language Processing, UC, Santa Cruz

2022 - 2023

Bachelors Computer Science, K.N. Toosi University

2017 - 2021

B.S. Thesis: Compact Pedestrian Detection using YOLO

#### **PROFESSIONAL EXPERIENCES**

## Sr. Software Engineer - Divar LLC (Karnameh)

Jul 2022 - Sep 2022

· Migrating the code to cloud and recalibrating the content engine for showing better adds-on post along with search result in Divar's Car division (Karnameh). Worked in both ML and Software part of the code.

## **Sr. Software Engineer - Tapsell Inc.**

Jun 2021 - Jul 2022

In charge of the Tapsell Reportage platform, leading a team of 8 people.

- Worked with Django and Django-Rest-Framework for backend
- Using Transformer model for understanding ad content for showing relevant ad => improved click rate by 27%
- Used classification for better directing relevant ads to the best users.
- Also worked on CMP project where I worked on the ad studio and effectively serve the data. (golang)

## **Software Engineer - Asre Danesh Inc.**

Jul 2019 - Jan 2021

I worked in 3 different departments, including R&D, software, and ML.

- ML: Designed the Credit Card scanner (OCR) worked with attention and transformers for Persian Alphabets (OpenCV) and model optimization.
- Backend with Django: Backend design with Django and Django Rest Framework for the crypto program.
- Software: User panel functions for the crypto program where I worked with Pandas and Numpy

#### **RESEARCH EXPERIENCES**

## Semantic Parsing - GMU, Virginia

Jul 2021 - Dec 2021

Worked with professor Ziyu Yao on a paper on semantic parsing. In this research project, we used a scoring metric – confidence score - to find the uncertain parts in the agent's generated query on cross-domain databases and detect the correctness of the output. => improved agents confidence on answers by 10%.

#### **OCR Persian letters - ADA**

Jul 2021 - Dec 2021

I worked with the model, optimization, and image enhancement, where we used attention as a decoder for OCR for detecting Persian chars which improved accuracy by 15%. Reduced instant OCR error rate by 10%.

## **PROJECTS**

PatentLaw - Nala LLC Jan 2023 - Now

Fine-tuned GPT3 + some other tools for creating a legal patent toolkit.

- Creating the claims and patent material, getting insights, references, and suggestions when writing a patent.
- Writing in a certain style for each client, given their specifications.
- Exporting everything to a word document and flowcharts to an editable Visio document for the final touch.
- Reducing the time need for patent registering from couple of days to couple of hours.