

# Yahya Badran

Applied Mathematics for Network and Data Sciences (M.Sc.)

- 📍 Mittweida, Germany
- ✉ Me@ybadran.com
- 🏠 ybadran.com
- 📖 blog.ybadran.com
- 🌐 github.com/badranx
- 📞 +4917676559158

## Skills: Programming

### Main:

Python ▪ C ▪ C# ▪ SQL ▪ Bash

### Used in the past:

Java ▪ C++ ▪ JavaScript/CSS/HTML

### Familiar:

Golang ▪ R ▪ GLSL

## Skills: Frameworks

Pytorch ▪ Numpy ▪ Pandas ▪ OpenGL ▪ Flask ▪ FastAPI ▪ NLTK ▪ Tensorflow ▪ JAX (familiar) ▪ Trax ▪ gitlab CI/CD ▪ Scrappy ▪ OpenCV

## Skills: Tools

Linux ▪ Git ▪ Huggingface ▪ MongoDB ▪ Heroku ▪ Docker

## Languages

Arabic (C2) ▪ English (C1) ▪ German (B1) ▪ Hebrew (A2)

## References

**Mahmoud Badran**, Senior Computer Vision Engineer, Reconess  
✉ mbadran@reconess.com

**Tareq Al-Qabb**, Senior Biomedical Engineer at Al-Najah University Hospital  
✉ tareq.alqabb@gmail.com

## Soft skills

- ▶ Problem-solving
- ▶ Critical thinking
- ▶ Teamwork
- ▶ Openness to criticism

## Education

### M.Sc Applied Mathematics for Network and Data Sciences

Mittweida University of Applied Science | Germany

9/2018 - 7/2021

## Work Experience

### Data Science (NLP)

LangXLang.com | non-profit | co-founder

Technology: Python, Stanza, Spacy, NLTK, Pytorch, Huggingface

- Tokenizing and POS Tagging huge multi-lingual corpora (datasets).
- Researching text generative models.
- Researching seq2seq (translation) models.
- Automating outputting human readable books from data.

8/2021 - today

### Freelance Developer and Indie Game Developer

xlang.info

Technology: C#, Java, SQL, MongoDB, Python, Android

- Two Unity game engine libraries for video game developers.
- Customer support for the libraries.
- One Android project related to a unity library. Java.
- Two indie video Games. C#
- One websites for local users (Flask, SQL, MongoDB, HTML, CSS).

4/2016 - 9/2018

### Software Developer

PinchPoint (no-longer exist) | Ramllah

Technology: C#, Java, Javascript, REST API

- Worked on 3 different video games.
- Lead a team of interns to develop a video game.
- Added SIM card payment solution in the MENA region (REST API, Java EE, Javascript).
- Built two art creation tools/editors for our artists.

6/2015 - 3/2016

### Software Developer

Neiraba Animation Studios

Technology: Javascript, HTML, CSS

- Converting Flash video games to Javascript/HTML5.

1/2015 - 4/2015

## Opensource Projects

- "Android & Microcontrollers / Bluetooth" library: It was top 10 on the Assetstore input management category. Later, become open-source.  
Technology: C#, Java, Multi-threading, Bluetooth, Unity3d
  - Published on Unity: [u3d.as/78c](https://u3d.as/78c)
  - Open-Source: [github.com/badranX/bt-lib](https://github.com/badranX/bt-lib)
- MyGnuplot: Plot library, interfacing GnuPlot. URL: [github.com/badranX/bt-lib](https://github.com/badranX/bt-lib)
- Opus-Raw: A Huggingface dataset. URL: [huggingface.co/datasets/badranx/opus\\_raw](https://huggingface.co/datasets/badranx/opus_raw)

## Research

- Badran, Yahya. "VQ-VAE with Neural Gas and Fuzzy c-Means". Thesis. 2021.
- **Acknowledged for demonstrating the last section in:** Demaine, Erik D., and Mikhail Rudoy. "Tree-Residue Vertex-Breaking: a new tool for proving hardness." 16th Scandinavian Symposium and Workshops on Algorithm Theory. 2018.
- **Course research:** Badran, Yahya. 2022. "Non-linear Time Series Prediction: A Survey." OSF Preprints. May 13. doi:10.31219/osf.io/5ab8n.
- **Course research:** Badran, Yahya. 2022. "Variational Auto-encoder with Student's T Prior: Excerpt." OSF Preprints. May 13. doi:10.31219/osf.io/c2unf.