



# Aljaž Frančič, PhD

## Computer Programmer

Born March 1, 1993



## Work experience

2022

↑  
2018

### Young Researcher, Teaching Assistant

*System Software Laboratory,  
Faculty of Electrical Engineering and Computer Science,  
University of Maribor*

- Biomedical signal processing with focus on electromyography (MATLAB, R, LaTeX)
- Machine learning (Python, NumPy, Matplotlib, TensorFlow, Keras)
- Computer vision (Python, NumPy, OpenCV)
- **Bibliography (COBISS)**



## Education

2023

↑  
2012

### University of Maribor

*Faculty of Electrical Engineering and Computer Science*

- 2023: PhD, Computer Science and Informatics  
Doctoral dissertation: **Software pipeline for computationally efficient and robust estimation of motor unit firing times from high density surface electromyograms**
- 2018: Master's degree, Computer Science and Information Technologies  
Thesis: **Robot control with a neural network and a muscle-machine interface**
- 2015: Erasmus+ student exchange at Tampere University, Finland
- 2015: Bachelor's degree, Computer Science and Information Technologies (UN)  
Thesis: **Automatic mouth detection from digital images by using active models**

2012

↑  
2008

### II. gimnazija Maribor

*The National Grammar School Programme*

- Zois scholarship recipient



## Projects highlights

### stonks-bot

Discord bot that pulls the prices for user-defined coins from CoinGecko for a user-defined number of last days and displays them in a plot in a relative manner (Python, NumPy, Matplotlib, Discord API, AWS)

### 8d-audio-homebrew

Jupyter notebook that converts a regular wav file into an 8d audio wav file (Python, NumPy, Matplotlib)

### Guide2Music

Android mobile application – interactive musical landmarks guide to Slovenian musical attractions using augmented reality (C#, Unity)

### sudoku-solver

Computer vision solution that finds a sudoku puzzle in a photo, extracts the puzzle grid, recognizes the numbers in the grid, finds the solution to the puzzle and projects it onto the original photo (Python, OpenCV)

### BIKE-DRIVE

Research and development of an electric bike



## Contact



### Email

[aljaz.francic@gmail.com](mailto:aljaz.francic@gmail.com)



### Phone

+386 51 410 170



### Address

Ješenca 6d  
2327 Rače  
Slovenia



### Links

[GitHub](#)

[LinkedIn](#)



## Skills

- Python
- C#
- C/C++
- Java
- MATLAB
- R
- LaTeX
- Git
- Bash
- Regex
- JavaScript
- HTML
- CSS
- MySQL
- AWS
- Heroku
- Myo
- Oculus
- Kinect
- Adobe Photoshop
- Microsoft Office



## Languages

- English (fluent)
- Slovenian (native)



## Hobbies

Walking, jogging, swimming, Magic the Gathering (trading card game), Old School RuneScape (videogame)



## Other

Easy-going, I like challenges, creative, I've been programming since 2009