

<https://github.com/aljazfrancic>  
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Description automatically generated <https://www.linkedin.com/in/aljaz-francic/>



**Aljaž Frančič**

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**Curriculum Vitae**

Born March 1, 1993

**Education**

* Primary school Rače
* II. gimnazija Maribor, The National Grammar School Programme
* University of Maribor, Faculty of Electrical Engineering and Computer Science
  + 2015: Bachelor’s degree, Computer Science and Information Technologies (UN)
    - Thesis: [Automatic mouth detection from digital images by using active models](https://dk.um.si/IzpisGradiva.php?id=48527)
  + 2015: Erasmus+ student exchange at Tampere University, Finland
  + 2018: Master’s degree, Computer Science and Information Technologies
    - Thesis: [Robot control with a neural network and a muscle-machine interface](https://dk.um.si/IzpisGradiva.php?id=71712)
  + 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](https://dk.um.si/IzpisGradiva.php?id=84908)

**Experience**

* 2018-2022: 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)](https://bib.cobiss.net/bibliographies/si/webBiblio/bib201_20231204_183141_52032.html)

**Project highlights**

* [stonks-bot](https://github.com/aljazfrancic/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](https://github.com/aljazfrancic/8d-audio-homebrew): Jupyter notebook that converts a regular wav file into an 8d audio wav file  
  (Python, NumPy, Matplotlib)
* [Guide2Music](https://guidetwomusic.wordpress.com/predstavitev-aplikacije-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 a solution to the puzzle and projects it onto the original photo (Python, OpenCV)
* BIKE-DRIVE: Research and development of an electric bike

**Proficiencies**

Python (NumPy, Matplotlib, Tensorflow, Keras, OpenCV, Discord API), C# (WPF, Unity), C/C++, Java, MATLAB, R, LaTeX, Git, Bash, Regex, JavaScript, HTML, CSS, MySQL, Heroku, AWS, Myo, Oculus, Kinect, Adobe Photoshop, Microsoft Office

**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 2010