

# Mihael Cindori

PhD in Mech. Eng.

**2**9 February 1992

Savska ulica 102D 10310 Ivanić-Grad Croatia

+385 0919220065

@ mihael.cindori@gmail.com

https://github.com/cimbaIG

## About me —

Mihael is a proud father of twin boys and postdoctoral researcher with the PhD in mech. eng. from the University of Zagreb, Faculty of Mechanical Engineering and Naval Architecture. He is a fresh programming enthusiast with deep interest for the data science and data analytics, as well as for the physics, computational modeling of fluid flows and mathematics.

## Skills -

Python, Git

Matplotlib, Numpy, Scipy

C++, C# (.NET), SQL, ADO.NET

Matlab, R

MS Office

OpenFoam®, LTFX, Inkscape

MacOS, Linux, Windows

Engineering, Teaching, Team work

Presenting skills

## \* The skill scale is from 0% (Fundamental Awareness) to 100% (Expert).

#### Education

since 2022 In progress... Coursera online certification IBM Data Science Professional Certificate, https://www.coursera.org/professional-certificates/ibm-data-science?skipBrowseRedirect=true

since 2022 In progress... Udemy online course 100 Days of Code: The Complete Python Pro Bootcamp for 2022, https://www.udemy.com/course/100-days-of-code/

2016-2021 PhD in Mech. Eng., Magna cum laude FAMENA, Uni Zagreb, Ivana Lučića 5, Zagreb

Thesis title: Computational modeling of the body force-driven homogeneous atmospheric boundary layer

2016-2017 - Adult education at Algebra, Gradišćanska 24, Zagreb Taking course *ASP.NET developer* 

Content: C# and .NET Framework, Windows Forms .NET, SQL, ADO.NET

2013-2016 M.Sc., Magna cum laude FAMENA, Uni Zagreb, Ivana Lučića 5, Zagreb Majoring in Mech. Eng.

2010-2013 B.Sc. FAMENA, Uni Zagreb, Ivana Lučića 5, Zagreb Majoring in Mech. Eng.

## **Experience**

since 2022 Postdoctoral researcher FAMENA, Uni Zagreb, Ivana Lučića 5, Zagreb Postdoc researcher at Department of Fluid Mechanics and university assistant working as a lecturer (courses: Fluid mechanics, Industrial aerodynamics)

2016-2021 PhD candidate in Mech. Eng. FAMENA, Uni Zagreb, Ivana Lučića 5, Zagreb Phd candidate at Department of Fluid Mechanics and university assistant working as a lecturer (courses: Fluid mechanics, Industrial aerodynamics)

2015-2016 Quality Assurance Eng. Student job at Creative fields d.o.o., Avenija Dubrovnik 15, Zagreb

Testing software *cfMesh* specialized for the generation of the finite volume meshes for the computational analysis of the fluid flows.

#### [Interests and hobbies]

Mihael spends his free time by playing with his twin boys, taking a long walks in the evenings, watching podcasts, reading books and learning (programming, physics, mathematics, philosophy, politics).

## Foreign languages

English Fluent speaker (Reading - C1, Speaking - C1, Understanding - C1).

German Basic knowledge (Reading - A1, Speaking - A1, Understanding - A1).

## [Publications]

Cindori, M., Čajić, P., Džijan, I., Juretić, F., Kozmar, H., *A comparison of major steady RANS approaches to engineering ABL simulations*. Journal of wind engineering and industrial aerodynamics 221, doi:10.1016/j.jweia.2021.104867

Cindori, M., Računalno modeliranje homogenoga atmosferskog graničnog sloja uz primjenu dodatne masene sile. PhD thesis (in Croatian), Faculty of Mechanical Engineering and Naval Architecture, University of Zagreb, Croatia, https://repozitorij.fsb.unizg.hr/islandora/object/fsb:7690



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#### **Publications**

2020	Cindori, M., Džijan, I., Juretić, F., Kozmar, H., The Atmospheric Bound-
	ary Layer Above Generic Hills: Computational Model of a Unidirectional
	Body Force-Driven Flow. Boundary-Layer Meteorology 176, 159-196,
	doi:10.1007/s10546-020-00521-0

2019 Cindori, M., Džijan, I., Juretić, F., Kozmar, H., Computational model of the atmospheric boundary layer flow over two-dimensional cosineshaped hills. The 15th International Conference on Wind Engineering.

Beiiing, China,

Cindori, M., Juretić, F., Kozmar, H., Džijan, I., Steady RANS 2018 model of the homogeneous atmospheric boundary layer. Journal of wind engineering and industrial aerodynamics 173, 289-301,

doi:10.1016/j.jweia.2017.12.006

Cindori, M., Džijan, I., Juretić, F., Kozmar, H., A novel steady RANS 2018 model for the computational modeling of the homogeneous atmospheric boundary layer flow over hilly terrain. In-Vento 2018, XV Conference of the Italian Association for Wind Engineering, Naples, Italy,

2018 Cindori, M., Juretić, F., Džijan, I., Kozmar, H., Computational Approach to Steady RANS Simulations of the Homogeneous Neutrally-Stratified Atmospheric Boundary Layer. The 7th International Symposium on Computational Wind Engineering 2018, Seoul, Republic of Korea.

Cindori, M., Juretić, F., Kozmar, H., Džijan, I., Steady RANS simulation 2017 of the homogeneous neutrally stratified atmospheric boundary layer. Proceedings of the 7th European-African Conference on Wind Engineering (EACWE 2017), Liege, Belgium.

#### Conferences

2018	The 7th International Symposium on Computational Wind Engineer-
	ing 2018, Seoul, Republic of Korea.

2018 In-Vento 2018, XV Conference of the Italian Association for Wind Engineering, Naples, Italy.

2017 7th European-African Conference on Wind Engineering, Liege, Bel-

## Projects

2017-2021 Wind and sea loads on energy structures (WESLO), Croatian Science

Foundation project, https://www.fsb.unizg.hr/?weslo

2014 Formula student, student project at Faculty of Mechanical Engineer-

ing and Naval Architecture, University of Zagreb

## Drivina licenses

Categories AM, B

## What are my current skills?

Python (Matplotlib, Numpy, Scipy)

I used it for the process automation, computing and postprocessing purposes.

• C++, C# (.NET), SQL, ADO.NET

Basic knowledge of OOP in C#.

Basic knowledge of .NET framework and database manipulation.

· Matlab, R

I used them for the computing and postprocessing purposes.

· MS Office

Excellent knowledge of MS Word, MS Excel and MS Powerpoint.



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Engineering, Teaching, Team work

Presenting skills

## What are my current skills?

• OpenFoam®, LTFX, Inkscape

Great knowledge of OpenFoam (open-source CFD software) based on the C++ libraries.

Very good knowledge of LaTEX for the text manipulation.

Very good knowledge of Inkscape for vector graphics.

· MacOS, Linux, Windows

I prefer MacOS, but I am also skilled in Linux OS (used to use it during my student days) and Windows (used to use it like - forever).

· Engineering, Teaching, Team work

Six years of experience working on solving various engineering problems during my PhD study.

Great capacity for the transfer of knowledge due to the experience gained from the teaching of several generations of students.

· Presenting skills

Very good presentation skills gained by attending the most important international conferences in the area of wind engineering.

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