Damján MIKLÓS

Mechatronics Engineering Student

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Experience

- **Research Assistant**
  BME Dept. of Hydrodynamic Systems, Hemo-Lab
  2024 – Present
  Responsible for data analysis in aneurysm research and uncertainty quantification in simulation models using Dakota, Python and MATLAB. Built a virtual patient sampling algorithm in MATLAB.
- **Online Tutor**
  Superprof
  2023 – Present
  Delivered over 1000 online tutoring hours in Math and Physics (English/Hungarian). Consistently ranked among the top tutors nationwide based on student feedback.
- **Guest Student**
  Eötvös Loránd University (ELTE)
  Spring 2023
  Completed university-level Fourier Analysis lectures at the Faculty of Science by special permission from the teacher while attending high school.

Software Skills

Operating Systems
Windows, Linux (WSL)

Engineering Software
Dakota, AutoCAD, Inventor, LabVIEW, MPLAB, Jupyter

Programming Languages
MATLAB, Python, C, C++, R, Wolfram Mathematica, Solidity

Languages & Competencies

English: C1 Professional Working Proficiency
German: B2 Intermediate
Hungarian: Native

Driving License: Category C

Education

- **BSc in Mechatronics Engineering**
  Budapest University of Technology and Economics (BME)
  2023 – Present
  Faculty of Mechanical Engineering
  Specialization: Analysis of Mechatronic Structures
  Track: Advanced Mathematics Program
- **High School Diploma**
  ELTE Trefort Ágoston High School
  2017 – 2023
  Specialization in Mathematics, Physics, and English

Awards & Research

- **1st Place – Scientific Students' Conference 2025 (TDK Research Paper)**
  BME Faculty of Mechanical Engineering
  Paper: "Evaluating uncertainty quantification methods in a simplified aneurysm model"
  + GHK Special Award
- **1st Place – Scientific Students' Conference 2024 (TDK Research Paper)**
  BME Faculty of Economic and Social Sciences
  Paper: "Irrationality in skewness preferences"
  + Morgan Stanley Best Paper on Economic Topics Award
  + 3rd Place at National OTDK Finals 2025
- **3rd Place – Keba Competition**
  2023, National Economics round

Hobbies

Cycling: Ultra-endurance
Tech: Overclocking, Hardware enthusiast
DIY: Built a garden house