



DIMITRIOS ZANTZAS

Personal Information

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Date of birth: 09 August 1995
Nationality: Greek

Personal Statement

The curiosity of “how things work” led to a passionate graduate mechanical engineer with strong analytical and problem solving skills. A continuously growing individual with a robust educational background. Willing to apply creatively the knowledge of fluid dynamics and biomechanics to simulate biological flows and develop medical devices. A collaborative and communicative team player.

Education

July 2020- Present	PhD Candidate Aristotle University of Thessaloniki, Thessaloniki (Greece) Department of Mechanical Engineering Thesis Title: “Development of novel sensor and digital twin of cardiovascular function for diagnosis, prediction, and support of medical decision.
Oct. 2013 – Mar. 2020	Diploma in Mechanical Engineering (equivalent to Master) Aristotle University of Thessaloniki (AUTH) <i>Majored in Fluid Mechanics and Turbomachinery</i> GPA: 7.3/10
2010-2013	Orchomenos High school Graduation degree 19/20 (<i>Honors</i>)

Projects

May. 2019 – Mar. 2020	Master Thesis (AUTH) <i>“Computational simulation of intraventricular hemodynamics based on 3D ultrasound imaging.”</i> Supervisors: Prof. Anestis Kalfas <ul style="list-style-type: none"> – Manual patient-specific 3D geometry reconstruction of the left ventricle included mitral and aortic valve, in many frames over one cardiac cycle, based on ultrasound imaging. – Based on the geometry reconstruction of the ultrasound images have created a model which describe the motion of the cardiac wall during systolic phase. – The model provides detailed intraventricular flow features and estimate the ejection fraction and cardiac output of left ventricle.
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Scholarships

2011-2013 Scholarship for having excellent marks in all high school classes.

Language Skills

- Excellent knowledge of **English** language (**Certificate of Proficiency C2 in English** from University of Michigan, 2018)
- **Greek** (Mother Tongue)

Technical Skills

- Hemodynamics, Biomechanics, Fluid Mechanics, Computational Fluid Dynamics, Finite Element Analysis, Algorithms, Thermodynamics, Turbomachinery, Aerodynamics, Machine Elements, Cubic Spline
- *Programming*: MATLAB (Excellent knowledge), C++ (Basic knowledge)
- *CAD & Simulations*: Inventor, Autocad, ANSYS (CFX, Fluent), ANSA-BETA CAE Systems, 3D slicer

Extracurricular Interests & Activities

- Applications and future developments in Bioengineering and Aerospace engineering.
- Cutting-edge medical devices.
- Small-scale plastic aircraft models.
- Football, Basketball, Hiking, Photography, Literature, Movies, Astrophysics, Volunteering