

# Stefan Ristevski, PhD

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**Mechanical Engineer with a PhD** specializing in event-triggered adaptive control of multi-agent systems, leveraging cutting-edge AI, machine learning, and autonomous systems technologies. Equipped with a strong technical and mathematical foundation, proficient in multiple programming platforms, and focused on driving innovation to address complex, real-world challenges in smart systems and IoT applications.

**Always looking for exiting new challenges.**

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## EDUCATION

<b>University of South Florida, Tampa, Florida</b>	<i>Jun. 2018 – Jun. 2021</i>
<b>PhD in Mechanical Engineering</b>	
Thesis: <i>Event-Triggered Control Architectures for Scheduling Information Exchange in Uncertain and Multiagent Systems</i>	
Note: <i>Multiple journal publications and approved patent in USA</i>	
<b>Bilkent University, Ankara, Turkey</b>	<i>Sep. 2012 – Jun. 2015</i>
<b>MSc in Mechanical Engineering</b>	
Thesis: <i>Mechanical and controller design of a modular mechatronic device - mechacell</i>	
Note: <i>Multiple journal publications and approved patent in USA and Turkey</i>	
<b>Middle East Technical University, Ankara, Turkey</b>	<i>Sep. 2008 – Jun. 2012</i>
<b>BSc in Mechanical Engineering</b>	
Graduation project: <i>Smart helical conveyor for sorting two types of small bottle caps - design, control, and manufacturing</i>	

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## WORK EXPERIENCE

<b>Borgwarner, Sweden</b>	<i>Sep. 2021 – Present</i>
<b>Controls &amp; Systems Engineer</b>	
○ Design of novel control algorithms for electric drive of hybrid vehicles.	
○ Design of novel control algorithms for torque transfer systems and all wheel drive.	
○ Perform test drives with vehicle and analyze data.	
○ Products integrated in Audi, BMW, BYD.	
<b>Study.com, Remote</b>	<i>Sep. 2018 – Jun. 2022</i>
<b>Academic writer &amp; Tutor</b>	
○ Tutor undergraduate students in Math/Physics/Statics/Dynamics.	
○ Write academic questions in Math/Physics with professional formatting and graphics.	
○ Write articles helping students to prepare them for next steps in professional life.	
<b>ARC Automotive, Skopje Macedonia</b>	<i>May. 2017 – Apr. 2018</i>
<b>Maintenance and PLC Engineer</b>	
○ Maintenance of production line for air-bag inflators.	
○ Maintain PLC code (AB) in production line.	
○ Integrate new features in production machines.	
○ Integrate Yaskawa industrial robot in production line.	
<b>Mikrosam AD, Prilep, Macedonia</b>	<i>May. 2016 – Apr. 2017</i>
<b>R &amp; D Engineer</b>	
○ Research and production of automated tape layup and automated filament layup machines.	
○ Integrating KUKA robots in production line with Siemens and Beckhoff PLCs.	
○ Develop PLC (Beckhoff) code for production machines of composite materials.	

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## SKILLS

**Programming:** Docker, Python, C, C++, C#, PLC, Matlab/Simulink, Regular Expressions, HomeLabbing, KUKA programming language, Yaskawa robot programming,  $\text{\LaTeX}$

**Tools:** Copilot, ChatGPT, Git, Excel VBA, Matlab/Simulink, Visio, MS Office suite, Canalyser, Canapea, Arduino, Raspberry Pi

**Methods:** Optimization, Automation, Smart solutions, Data analysis, Drones

**Languages:** Macedonian (Native), English (Fluent), Turkish (Fluent), Swedish (Basic)

**Interests:** TV Shows, DIY projects

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