JAKA PANDZA

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EDUCATION

Columbia University (SEAS) / New York City, NY / US August 2021 - May 2023

BS Mechanical Engineering ***Present GPA: 3.7***

Relevant coursework: Robotics studio, AI, Machine Learning, Data Science, Digital Manufacturing, Human-centered design, Finite Elemental Analysis, Heat Transfer, Materials/Processes in Manufacturing, Classical Control Systems

Franklin & Marshall College / Lancaster, PA / US September 2018 - May 2021

BA Physics ***GPA: 3.9***

- The John Kershner Scholar Award for proficiency in physics and astronomy (2021)
- Two-time Centennial Conference Academic Honor Roll (2020, 21)
- NABC Honors Court (2021). Awarded to athletes with exceptional academic performance

SKILLS

- Programming languages: Python, Java, Q, C++, G-Code, MATLAB, LaTeX, LabVIEW, WolframAlpha
- Computer: Solidworks, Autodesk Inventor, Altair Inspire, Abaqus, OSIsoft PI system, Rockwell FactoryTalk
- Soft skills: Project management, team leadership/followership, process/design optimization, tech innovation, technical writing, public speaking, experimental research, product marketing, Spanish, Slovenian, Croatian

EXPERIENCE

Process Automation Engineering Intern / UPSIDE Foods, Berkeley CA May 2022 – August 2022

- Coordinated technology for a fast-growing, high-tech company developing sustainable cultured meat
- Developed and integrated instrumentation equipment using the OSIsoft PI system and FactoryTalk software suite
- Designed and manufactured an innovative robotics module to resolve a longstanding R&D challenge
- Worked in cross-functional teams to create SCADA graphics and user interfaces

ROAR Robotics Lab Research Student / Columbia University September 2021 - Present

- Conducted research under Professor Agrawal at the Robotics and Rehabilitation Lab on mobility aids/exoskeletons
- Innovating, designing, and manufacturing data acquisition techniques and technology such as sensors
- Streamlining data processing for 3D gait analysis using sensor data, exoskeletal feedback, and motion capture data
- Testing and incorporating the feedback of post-stroke/neurodivergent patients to evolve mobility aids

Equipment Engineering intern / The Terahertz Radiation and Non-linear Optics Lab, F&M College May 2021 – July 2021

- Designed and manufactured a four-point collinear probe to test the resistivity of semiconductor wafers
- Required advanced knowledge of Autodesk Inventor, FreeCAD, and LabVIEW
- Gained extensive experience in 3D printing (for fast prototyping using resin and PLA) and in industrial workshop equipment, machines, and procedures

Robotics Engineering intern/ NATO Science for Peace and Security Programme November 2020 – May 2021

- Collaborated with international engineers on a global robotics initiative, as part of a US-based sub-team
- Assisted in developing a cost-effective, efficient, and terrain-adaptable robotics system to disarm minefields
- Tasked with programming navigational code in C and Python to coordinate a system of three robots

EXTRACURRICULAR ACTIVITIES

- Columbia University Residential Advisor and member of the International Student Advisory Board (2020 – Present)
- U17 & U15 British National Basketball team and F&M College basketball team (2018-2021)