Career Roadmap

A Journey Through Academia, Research & Innovation

Dr. Dipankar

Robotics & Control Systems Expert

🏆 Current Position

Marie Skłodowska-Curie Postdoctoral Fellow

📍 Imperial College London

🔬 Dyson School of Engineering

🎯 Cable-driven Soft Exoskeletons for Rehabilitation

15+ Publications

5+ Countries

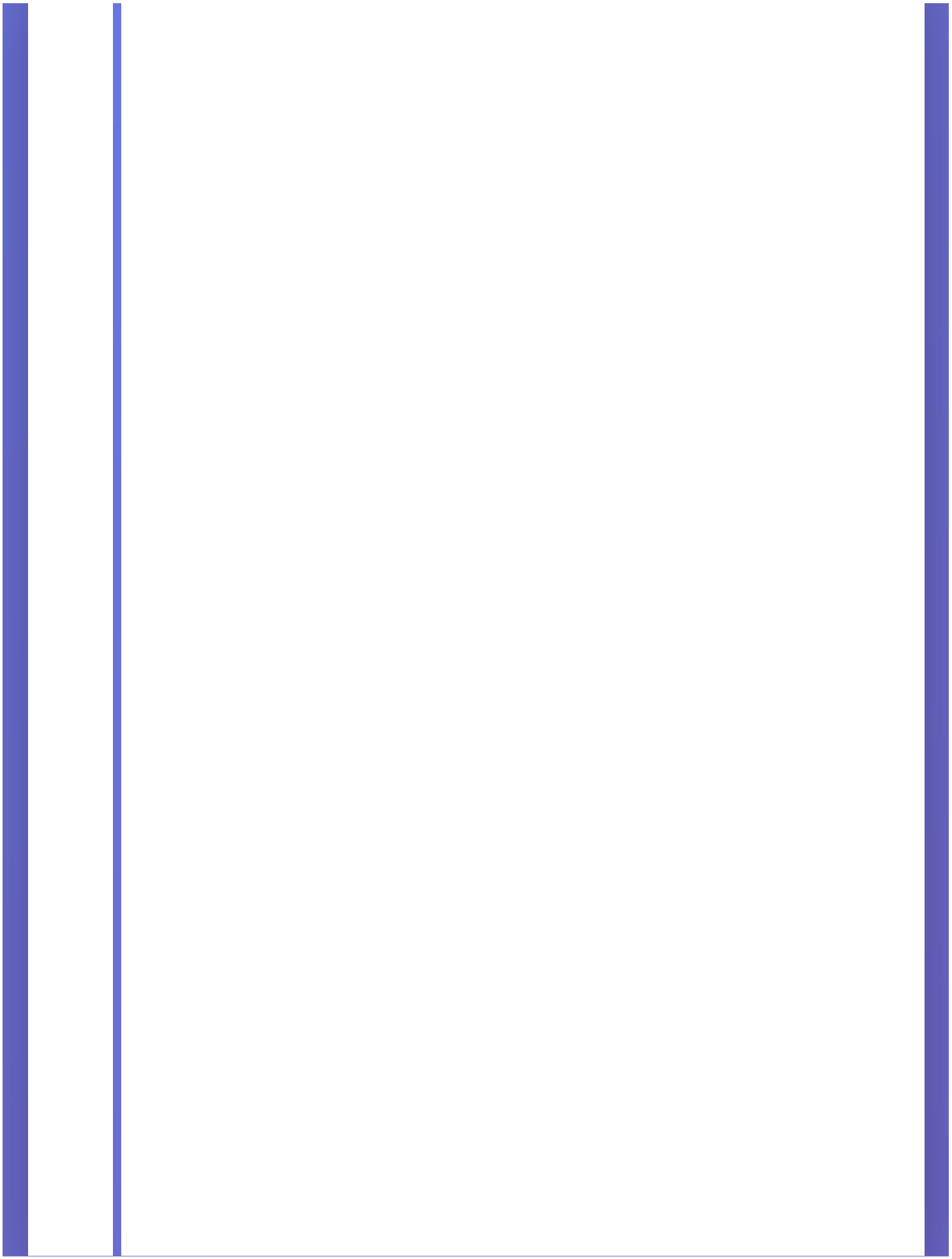
10+ Projects

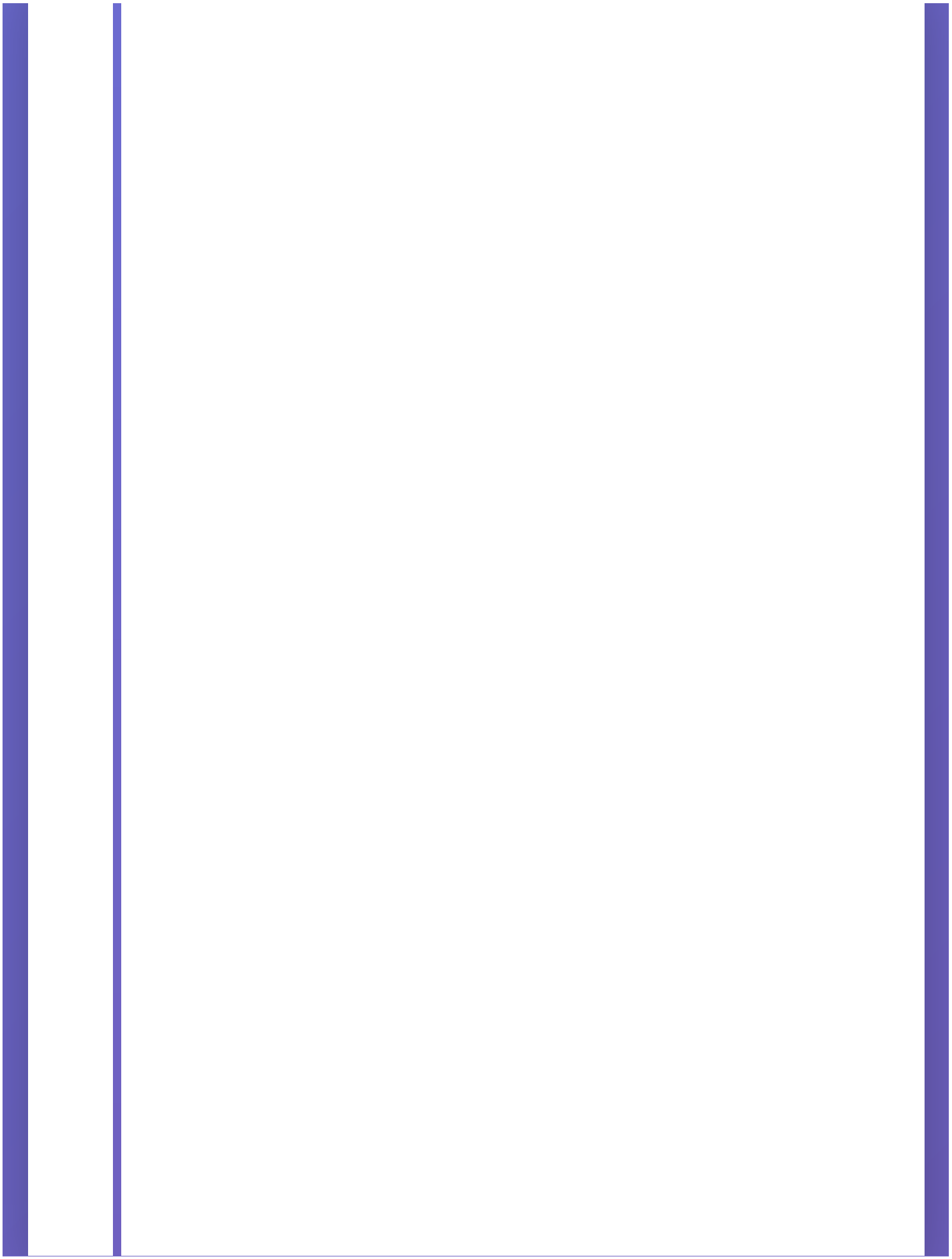
Medical Robotics

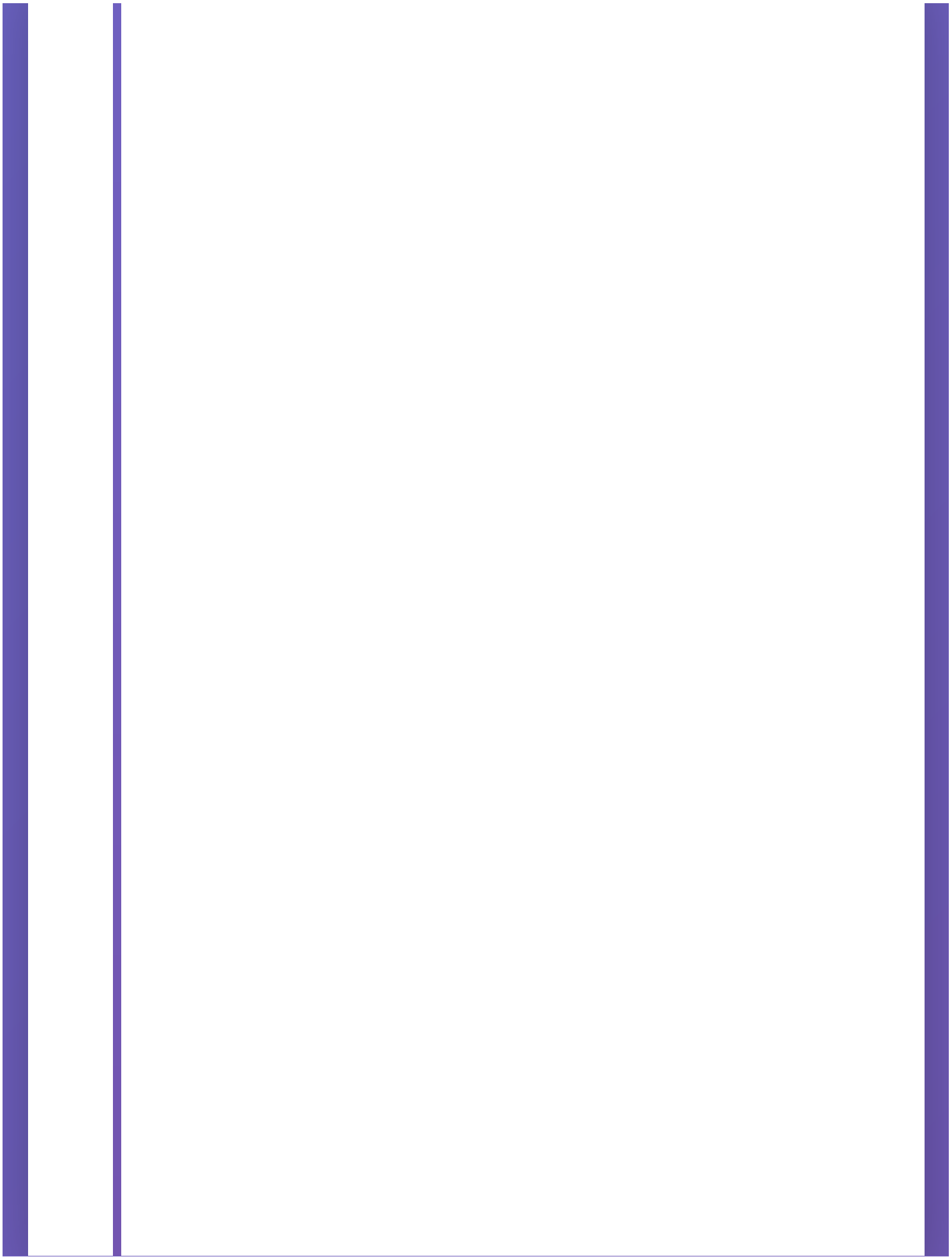
Cable-Driven Robotics

Industrial Automation

AI & Machine Learning







🛠️ Technical Skills & Expertise

🤖 Robotics & Control

Cable-driven robots, Soft robotics, Mechatronics systems, Control systems design, Robotic manipulation

💻 Programming

PyTorch, Python, MATLAB, ROS, LabVIEW, Gym framework, Assembly languages, C programming

🎨 Design & Modeling

Blender, SOLIDWORKS, Inventor, Inkscape, 3D modeling, CAD design

🔧 Hardware

Raspberry Pi, myRIO, Arduino, Microprocessors (8085, 8086, 8051), Embedded systems

🧠 Machine Learning

Deep learning, Imitation learning, Physics-based modeling, Predictive control, Neural networks

📝 Research & Communication

Academic research, Scientific writing, LaTeX typesetting, Grant proposals, Mentorship

🔬 Research Themes

Medical Robotics

Cable-Driven Robotics

Soft esophagus modeling, Endoprosthetic stent testing, Rehabilitation robotics, Muscle impairment therapy

Parallel robots, Cable wrapping dynamics, Growing vine robots, Soft exoskeletons

Industrial Automation

Fabric manipulation, Garment production, Physics-based control, Robotic handling systems

AI & Learning

Imitation learning, Iterative learning control, Non-linear predictive control, Machine learning models