

Alessandro Durat

BIOMEDICAL ENGINEER

Milan, Italy

Born: 3 March, 1998



ABOUT ME

I'm an adaptable and determined biomedical engineer: for the last two years I have been fascinated by the surgical robotic field and I am determined to leave a mark in this field, with a particular focus on the surgical training.

I'm a sport person who can be very competitive, I like cooking to celebrate big occasions with friends and I'm a mountain enthusiast.

EDUCATION

BSc in Biomedical Engineering

> September 2017 - March 2021

Politecnico di Milano, IT

Thesis: *Strategie e Tecnologie di Bioprinting*

MSc in Biomedical Engineering

> March 2021 - July 2024

Politecnico di Milano, IT

Thesis: *Enhancing Grasping Force Training in daVinci Surgical Simulator: Integrating Visual Feedback to Prevent Tissue Damage*

SKILLS

Language

Italian: Native Speaker

English: IELTS Level 7.5 (C1), 2016

Spanish: B1 Level

Technical

Dev: C, C#, C++, MATLAB

Graphic: Unity

Cad: Autodesk AutoCAD, Blender

Office: LaTeX, Microsoft Office Suite

CONTATTO

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RELEVANT WORK

Application of Reinforcement Learning on a Virtual Surgical Robot to Automate a Tumor Removal Operation

> September 2022 - January 2023

An AI trained with Reinforcement Learning in a Unity virtual scene to control a dVinci robotic arm and perform a surgical operation

Mastered teamworking and problem-solving skills

Enhancing Grasping Force Training in daVinci Surgical Simulator: Integrating Visual Feedback to Prevent Tissue Damage

> April 2023 - July 2024

A daVinci simulator in a Unity virtual scene provided with softbody simulation and a real-time visual feedback about the force used to grasp the handled objects

Mastered graphic modelling, programming and problem-solving skills

MORE INFO

> Agonist tennis player for 7 years (regional and national level)

> Math team member for 4 years, one as captain (regional and national level)

> 3rd place at regional qualifiers for the singular Math National Competition (2017)