Mr. Guglielmo Fonda

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EDUCATION

NYU Abu Dhabi — Abu Dhabi, UAE
Bachelor of Science (in progress), GPA: 4.0/4.0
Declared major: Mechanical Engineering — *August, 2020 – Expected May, 2024*

United World College — Trieste, Italy
IB Score 41/45, Math HL 7/7, Physics HL 7/7 — *August, 2018 – May, 2020*

PROJECTS AND RESEARCH

App Development — *September – November, 2020*
- Developed, as a team project, a functioning chemistry instruction app using Unity AR
- Animated animated 3D models of atoms and famous reactions which can be very abstract for young kids
- Designed app UI and coded the C# scripts for the app which can be used with any smartphone's camera

Water Rocket Optimization — *February – October, 2019*
- Fabricated experimental set up (launcher and rocket) and data collection setup (camera and pressure sensors)
- Wrote a flight simulation for the rocket to validate experimental data
- Analyzed the experimental data and determined the most effective ratio of propellant to load

Radon Gas Investigation — *January – June, 2019*
- Assessed the effect of ventilation on the concentration of carcinogenic Radon gas in closed basements
- Collected data using β particle sensor over a two-weeks period
- Deduced that with simple and practical ventilation the concentration of Radon drops by 50 % in 70 minutes

LEADERSHIP AND VOLUNTEERING EXPERIENCES

Science for Kids | *Volunteer* — *September, 2018 – February, 2020*
- Taught a weekly class to over 500 kids from local elementary schools
- Prepared interactive presentations about science and sustainability centered around hands-on experiments
- Practiced leadership and effective communication skills by coordinating a twelve-member's team

Trieste Next | *Volunteer* — *August - September, 2019*
- Led multiple sessions open to the public (kids) with the theme of "The periodic table"
- Prepared interactive presentations and experiments about paper chromatography, spectroscopy, trends and properties of elements
- Stimulated a very positive response in the kids who were engaged and their teachers

Math Olympiad | *Club Leader*
- Led Math Olympiad Club by preparing by-weekly preparatory problems — *September, 2017 – February, 2019*
- Achieved the best regional score in the Math Olympiad — *November, 2018*
- Nominated to be leader of the math Olympiad school team, reaching the national stage — *September – May, 2017*

SKILLS

Languages: Italian *(Native)*, English *(Fluent)*
Software: *(Proficient in)* Fusion360, Matlab, Visual Studio, Unity AR, Google Suite, Microsoft Office, Overleaf *(Intermediate in)* GitHub, Atom, Linux
Programming languages: *(Proficient in)* C++, LaTeX *(Beginner in)* Python, HTML