

# Marko Brnović

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## EDUCATION

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- **New York University Abu Dhabi** Abu Dhabi, United Arab Emirates  
*Bachelor of Science - Physics and Mathematics joint degree; GPA: 3.825/4.0* Sept. 2018 - May 2022  
*Honors:* Studying with a full academic scholarship  
*Courses:* Multivariable Calculus, Ordinary Differential Equations, Analysis 1, Probability and Statistics, Statistical Mechanics and Thermodynamics, Mechanics, Electricity and Magnetism, Electromagnetism and Special Relativity, Mathematical Modelling, Quantum Mechanics 1, Fluid Dynamics, Capstone Project in Physics
- **Bede's Senior School** East Sussex, United Kingdom  
*AQA A-Levels; A\* (Maths) A\* (Further Maths) A\* (Physics) A (Chemistry)* Sept. 2016 - July 2018  
*Honors:* Studying with a full academic scholarship
- **Grammar School "Slobodan Skerovic"** Podgorica, Montenegro  
*General Montenegrin Educational System; GPA: 4.0/4.0* Sept. 2014 - June 2016
- **Elementary School "Sutjeska"** Podgorica, Montenegro  
*General Montenegrin Educational System; GPA: 4.0/4.0* Sept. 2005 - June 2014

## EXPERIENCE

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- **New York University Undergraduate Research Program** Abu Dhabi, United Arab Emirates  
*Capstone Researcher* Oct. 2020 - present
  - **Helped engineer a code which simulates raft movement on top of a Rayleigh-Bénard convection cell:** and provides particular insight into yet-unexplored theory of intermittent boundary motion due to convection
  - **Helped prove a theoretical postulate:** of dependence of a Rayleigh number on a Nusselt number in turbulent convective flow by means of a numerical simulation
- **Private Tutor** Montenegro; United Kingdom; United Arab Emirates  
*Self-employed* September 2016 - present
  - **Provided more than 100 private tutoring lessons in Physics and Mathematics:** primarily for students to be met with the Montenegrin national Matura exams, General Certificate of Secondary Education (GCSE) and A-Levels
- **Repetitio est Mater Studiorum (ReMS)** Podgorica, Montenegro  
*Physics and Mathematics Tutor* Sept. 2015 - present
  - **Helped devise and popularise an innovative approach to teaching:** that aimed to provide holistic high quality education to children from low-income families
  - **Tutored individuals and groups of middle-to-high school children:** including expanding the usual school curriculum resulting in an overall average increase of two grade points

## LEADERSHIP & COMMUNITY ENGAGEMENT

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- **Organisation of Montenegrins Studying Abroad (OMSA) Assembly** Tivat, Montenegro  
*Delegate* July 2019
  - **Contributed to a nation-wide assembly of Montenegrin students studying abroad:** by discussing pertinent problems young students encounter
  - **Negotiated with the Ministry of Education:** the ratification and acceptance of foreign university diplomas in Montenegro to better incentivise community engagement and unity amongst young academics
- **Habitat for Humanity: Young Leaders Build** Negombo, Sri Lanka  
*Participant* March 2019
  - **Volunteered to build a home:** intended for an underprivileged family of five
  - **Contributed to a group project which committed to:** enable families in Sri Lanka to achieve strength, stability and self-reliance through shelter
- **PRONA Science Fair** Podgorica, Montenegro  
*Coordinator* June 2016 - July 2016
  - **Designed and facilitated an interactive scientific presentative exposition:** through which young students can learn the elementary concepts of science such as basics of electromagnetism and chemical reactions
- **American Corner Montenegro** Podgorica, Montenegro  
*Volunteer* September 2015 - June 2016
  - **Lead a team of 7 peers successfully:** to cultivate a safe learning environment for 20 children
  - **Taught English:** to underprivileged children through innovative games and modern educational mechanisms

## SKILLS & INTERESTS

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- **Languages:** Montenegrin (Native), English (Fluent), Spanish (Intermediate), Italian (Intermediate)
- **Softwares:** Python (scipy, matplotlib, manim), MATLAB, Mathematica, Desmos, Stata, Microsoft Office
- **Interests:** Education, Research, Volunteering, Philanthropy, Water Polo, Swimming, Basketball, Triathlon, Guitar
- **Soft Skills:** Simulations, Graphic Design, LaTeX writing, Leadership, Teamwork, Critical Thinking, Public Speaking