

# Mohammad ZIRDI SYUKUR

## Undergraduate Student and Researcher at Yale-NUS College

[in linkedin.com/in/m-zirdi-syukur-28a2ab1a2](https://www.linkedin.com/in/m-zirdi-syukur-28a2ab1a2) [github.com/zirdisyukur](https://github.com/zirdisyukur)  
@ zirdisyukur@u.yale-nus.edu.sg 10 College Avenue West #01-101 <https://zirdisyukur.github.io>



I am a third year physics major at Yale-NUS College in Singapore. I am expecting to graduate by April 2023. I am currently most interested in astrophysics and high energy physics. Outside of physics, I make music and dance!

## POSITIONS

**Present** | **Private Tutor, , Paris, France**  
**May 2021** | Offering services to high school students studying mathematics and physics  
[Zoom](#) [Teaching](#)

**Present** | **Undergraduate Student Researcher, SPECIAL POCKET RESEARCH GRANT : DIRECT-CURRENT ELECTROMAGNET FIELD SIMULATIONS/DESIGN, Yale-NUS College**  
**December 2020** |  
‣ Programming and conducting simulations of strong bias magnetic field coils intended to create uniform and specific fields that can control the variation of field strength. Coil designs are intended for use in a future quantum gas experiment with alkali atoms at Yale-NUS College.  
‣ Designing and testing numerical simulations in Julia. Referencing and converting existing but limited simulations in Mathematica.  
‣ Visualizing coils and their magnetic fields in a simulated environment.  
‣ Documenting design process and working towards a optimal design.  
‣ Supervised by Professor Ben A. Olsen  
[Julia](#) [Mathematica](#) [Python](#)

**October 2020** | **Undergraduate Student Researcher, BUILDING AND TESTING A RADIO TELESCOPE, Yale-NUS College**  
**January 2020** |  
‣ Make improvements to radio telescope  
‣ Create back-end for telescope observations and processing  
‣ Observing hydrogen line emissions from Galactic center  
‣ Testing RFI environment in Singapore and feasibility of using astronomy instrumentation  
‣ Supervised by Professor Chelsea Sharon  
[Python](#) [GNURadio](#) [Unix](#)

**July 2019** | **Intern, SCHLUMBERGER, R&D, Clamart, France**  
‣ Learned about Schlumberger technology division  
‣ Understood the tech development process  
‣ Assigned with basic assignments using Arduino and Python  
[Arduino](#) [Python](#)

## SKILLS

**Proficient** | [Python](#) [Java \(Oracle Junior Associate Certification\)](#)

**Experience** | [Julia](#) [HTML](#) [CSS](#) [Unix shell scripting \(bash\)](#) [GNURadio](#) [LaTeX](#) [R](#)

**Learning** | [MCMC](#) [ADQL](#) [SQL](#)

## LANGUAGES

**English** ● ● ● ● ●  
**Français** ● ● ● ○ ○

## EDUCATION

2023 | Expected, BS (Honours) in Physical Science with a focus in Physics, Yale-NUS College, Singapore  
2019 | High School Diploma, the American School of Paris, France

## + TRAITS

‣ Curious  
‣ Eager to learn  
‣ Persistent

 SELECTED HONOURS AND AWARDS

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2019 Mark E. Ulfers Leadership Award