Mohammad Zirdi Syukur Undergraduate Student and Researcher at Yale-NUS College

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https://zirdisyukur.github.io



I am a third year undergraduate student at Yale-NUS College in Singapore. I am majoring in Physical Sciences with a focus in physics. 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

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 January 2020

Undergraduate Student Researcher, BUILDING AND TESTING A RADIO TELESCOPE, Yale-NUS College

- > 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

Java (Oracle Junior Associate Certification) Proficient Python

CSS Unix shell scripting (bash) GNURadio LaTeX R Experience Julia HTML

Learning MCMC | ADQL | SQL





English



- > Curious
- > Eager to learn
- > Persistent

EDUCATION

Expected, BS (Honours) in Physical Science with a focus in Physics, Yale-NUS College, Singapore

High School Diploma, the American School of Paris, France

Selected Honours and Awards

Mark E. Ulfers Leadership Award