# **JOVAN ALFIAN DJAJA**

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West Jakarta, DKI Jakarta, Indonesia

#### **SUMMARY**

I am an enthusiastic and adept physics undergraduate student at Universitas Indonesia, Depok. My interest lies in physics, with a particular focus to nuclear and particle physics, condensed matter physics, and atomic physics. My passion for the subject is further reinforced by my myriad of accomplishments and experiences in the field that I attained over the years, which serves as witness to my constant growth in learning physics. Additionally, I retain a curiosity in programming skills.

# **EDUCATION**

Universitas Indonesia August 2021 - Present

Undergraduate Student in Physics (GPA 3.88/4.00)

Department of Physics, Faculty of Mathematics and Natural Sciences

# **SMAK 1 PENABUR Jakarta**

July 2018 - May 2021

Higher Secondary Education Mathematics and Natural Science

#### WORKING EXPERIENCE

#### **Teaching Assistant For Quantum Physics 2**

Department of Physics, Universitas Indonesia

August 2023 - December 2023

· I assisted Muhammad Aziz Majidi, S.Si., M.Si., Ph.D.

### **Teaching Assistant For Thermodynamics**

Department of Physics, Universitas Indonesia

August 2023 - December 2023

· I assisted Dr. Ar Rohim, S.Si., M.Sc.

# **Physics Olympiad Tutor**

Didatech Pandu Solusi

March 2023 - April 2023

· I was recruited by Windya Fajira, S.Si. (COO of Didatech) to train three students from Nurul Fikri Boarding School Bogor in preparation for the District Physics Science Olympiad, which serves as the first stage of the annual National Science Olympiad organized by Ministry of Education, Culture, Research, and Technology (Kemendikbudristek) Indonesia.

#### **Teaching Assistant For Fundamental Physics 2**

Department of Physics, Universitas Indonesia

February 2023 - April 2023

· I assisted Surya Darma, S.Si., M.Si.

# **Teaching Assistant For Fundamental Physics 1**

Department of Physics, Universitas Indonesia

August 2022 - January 2023

· I assisted Dr. Deni Hardiansyah, S.Pd., M.Si.

# **VOLUNTEER EXPERIENCE**

#### Moderator

Pengenalan Departemen Fisika UI 2023

September 2023

I assumed the role of moderator for a talk show on the theoretical nuclear, particle, and astrophysics and condensed matter physics research focus within the Physics Department of UI, organized by the Introduction to the Physics Department UI.

# **Physics Tutor**

BETIS Fasilkom UI 2022

February 2022 - May 2022

- · I designed and developed two rigorous physics modules, one centered on modern physics and the other on electromagnetism, tailored to the academic needs of students.
- · I conducted two interactive problem solving sessions in the subject of vibrations and waves as well as electromagnetism via Zoom meeting.
- · I held a comprehensive discussion on ten physics problems during each session with the students.
- · I responded and catered to the diverse academic needs of students beyond active hours.

### **Physics Tutor**

Marsiajar.id

August 2021 - January 2022

- · I taught physics to around 10 20 eleventh graders and twelfth graders via zoom meeting monthly, mainly for school and university entrance exams.
- · I try to teach the concepts as clearly as possible and be a little more advanced than the school level.
- · I provided exercises after each lecture session to help students develop analytical and logical thinking in applying concepts to solve physics problems.
- · I responded to after-hours contact to assist students.
- · I held eight live sessions. The first six sessions were on electromagnetism, the seventh was on special relativity, and the last one was on simple harmonic motion.

# **Physics Peer Tutor**

SMAK 1 PENABUR Jakarta

March 2020 - October 2020

- · I helped my peers develop and utilize analytical approaches to solving physics problems.
- · I taught physics concepts from the introductory level until the advanced level.
- · I provided exercises to my peers to help them develop analytical and logical thinking in solving physics problems.
- · I responded to after-hours requests to help my peers with questions.

#### ORGANIZATIONAL EXPERIENCE

#### Pesta Rakvat Fisika XII

Vice PIC of Physics Competition Division

April 2023 - November 2023

#### Aksi Sosial KMK FMIPA UI

Coordinator of Public Relations, Publications, Design, and Documentation

April 2022 - June 2022

· I made designs to publicize the program, especially the transparency of donation.

# Dewan Perwakilan Mahasiswa UI

Staff of Research and Development Division

March 2022 - January 2023

- · I examined and interpreted two surveys, one comprising of around 200 and the other, 400 respondents in order to develop a strategic plan for the organization.
- · I designed an instagram post with the purpose to introduce the upcoming annual university orientation program.

#### Himpunan Mahasiswa Departemen Fisika UI

Staff of Departement of Academic, Research, and Profession

March 2022 - January 2023

- · I became a master of ceremony for a seminar to introduce the profile and prospects of research groups in the physics department which have around 40 participants
- · I organized and regularly updated a google drive consisting of electronic books and past exams to help students in their studies.
- · I organized three tutoring sessions on calculus and modern physics in order to assist students for upcoming exams.

# Pesta Rakyat Fisika XI

Staff of Physics Competition Division

August 2021 - November 2021

- · I collaborated with my team in designing and curating sophisticated physics problems targeted to high school students, each of them requiring the utilization of various concepts and a profound grasp of physics to formulate a solution.
- · I oversaw and proctored the examination process, assessed the answers, and made deicsions on which teams qualify to advance to the next round.

#### **SMAKONECUP** Committee

Staff of Junior High School Competition Division

October 2018 - October 2020

- · I made various physics problems for the mathematics and natural sciences competition with my team.
- · I made a marking scheme for the problems as a guideline to mark the exam.
- · I help to invigilate, score the exam, and decide which team passes to the next round.
- · I acted as a Liaison Officer (LO) for a team and help coordinate them throughout the competition.

# **Class Representative Council**

Member July 2017 - June 2018

# **Scout Troop**

Treasurer March 2017 - December 2017

- · I supervise the cash flow in the organization together with my partner.
- · I participated in a scout competition with my troop and won third place in the boy troop category.
- · I help train my juniors in scouting skills, such as drill commands, pioneering, and semaphore.
- · I also play an active role in each activity in the organization, such as leadership camp, jamboree, scouts' day, and extracurricular demonstration.
- · Furthermore, I also became a first-class scout and had seven activity badges.

#### **AWARDS AND ACHIEVEMENTS**

Physics Silver Medallist in The 2023 Mathematics & Natural Sciences National Olympiad	June 2023
Physics Bronze Medallist in The 2022 Mathematics & Natural Sciences National Olympiad	September 2022
Semifinalist in Physics Competition, EUREKA 2022, Institut Teknologi Bandung	March 2022
Silver Award in The Duke of Edinburgh's International Award	August 2021
Semifinalist in Top Challenge of Physics (TOPCOP) 2020, Universitas Gadjah Mada	November 2020
First Place in Physics Competition, Pesta Sains Nasional 2020, IPB University	October 2020
First Place in Atmajaya Physics Competition 2020, UNIKA Atmajaya	March 2020
First Place in Physics Competition, PRF X, Universitas Indonesia	February 2020
Third Place in Physics Competition, EUREKA 2020, Institut Teknologi Bandung	February 2020
Second Place in Physics Competition, Pesta Sains Nasional 2019, IPB University	November 2019

#### **SKILLS**

# **Programming skills:**

LaTeX (Intermediate), Python (Basic), HTML & CSS (Basic)

# Science:

Calculus (Advanced), Physics (Advanced)

# Languages:

English (Advanced), Indonesian (Native), Japanese (Basic), Korean (Basic)