# Zohan Syah Fatomi

Curriculum Vitae

# PERSONAL DETAILS

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# **PORTOFOLIO**

Publishing Python and Numerical Computation book ISBN: 978-602-386-957-2 (shorturl.at/msGHU).

- 2. Publishing an international journal in Computational Condensed Matter (shorturl.at/bhrGY)
- 3. Attending International Symposium on Computational Science 2021 Kanazawa Univeristy (Japan) as Presenter (shorturl.at/jtT58)
- 4. Attending International Conference ICMA-SURE 2022 Jenderal Soedirman University (Indonesia) as Presenter (shorturl.at/htAN3)
- 5. Attending International Conference ICST 2022 Gadjah Mada University (Indonesia) as Presenter (shorturl.at/cgEF2)

## **EDUCATION**

#### Kanazawa University (Japan)

Applied Mathematics and Computational Science

Research Focus: Material properties prediction, Machine Learning, Deep Learning

#### Universitas Gadjah Mada (Indonesia)

**Physics** 

Research Focus: Material science, Numerical Simulation, Density Functional Theory

## **WORK EXPERIENCE**

#### Research Assistant

(Jenderal Soedirman University)

- 1. Performing computational science research with lab members.
- 2. Conduct academic publication in an international journal.
- 3. Detail tools: Python, Mathematical modeling, Numerical Calculation, Machine Learning, Deep Learning.

## Python Developer

(Bitwyre Exchange)

- 1. Discussion with the team to deliver features exchange.
- 2. Building crypto exchange algorithm to provide low-latency transactions.
- 3. Fix bugs, build testing, and manage micro-service system Python-related projects.

1/9/2022-Now

2019-2021

2014-2019

- 4. Making endpoint based on event distributive system.
- 5. Detail tools: Python, SQL, Apache Kafka (Redpanda), Flask, Git, Pandas, Docker, TensorFlow, Keras, Scikit-Learn, matplotlib, ggplot.

### Research Assistant 01/21-04/21

Saito Lab. (Kanazawa University)

- 1. Discussion with Lab. members to set the research goals.
- 2. Collaborate with Lab. members to process data obtaining, data analysis, and data visualization.
- 3. Final presentation of the International Symposium on Computational Science 2021, Kanazawa University, Japan (hal.s.kanazawa-u.ac.jp/iscs2021.html).

## Research Assistant 08/18-07/22

Computational Physics Lab. (Universitas Gadjah Mada)

- 1. Teaching and tutoring of python programming and numerical analysis to the Lab. members.
- 2. Publishing educational book of "Pemrograman dan Komputasi Numerik Menggunakan Python" UGM PRESS, ISBN: 978-602-386-957-2 (https://www.tokopedia.com/ugmpressonline/pemrograman-dan-komputasi-numerik-menggunakan-python).
- Publishing international reputable journal of Computational Condensed Matter (https://doi.org/10.1016/ j.cocom.2022.e00708)

## **KEY SKILLS**

#### Numerical Analysis and Machine Learning

Able to make a numerical simulation or model for real-world problems by using programming. Able to perform machine learning techniques such as supervised learning, unsupervised learning, reinforcement learning, and deep learning.

#### Data Handling and Analysis

Being proficient in handling and analyzing data includes data preprocessing, cleaning, feature engineering, and exploratory data analysis (EDA).

#### **Neural Networks**

Understanding various neural network architectures (e.g., convolutional neural networks, recurrent neural networks)

## Natural Language Processing (NLP)

Able to demonstrate NLP techniques such as text classification, sentiment analysis, and named entity recognition)

#### Computer Vision

Able to perform computer vision involves extracting information from images and videos such as classification, object detection, image segmentation, and image generation

## RELEVANT INFORMATION

Math Skills: Numerical Calculation, Linear Algebra, Calculus, Statistic, Probabilistic, Discreate Mathematics, etc.

**Programming Language:** Python (Numpy, Pandas, Scipy, Matplotlib, Scikit-Learn, Pytorch, Flask, etc.), Java (Minor), C++ (Minor)

Data Visualization Tools: Excel, Google Sheets, Matplotlib, Tableau

CI/CD: Git, Github, Docker, Apache Kafka (Redpanda)

Database: SQL/NoSQL, PostgreSQL

Machine Learning: Scikit-Learn, Pytorch, TensorFlow

Langauge: English, Indonesia, Japanese (Minor)