




Fandi A. Wiranata

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RESEARCH INTERESTS

Computer Systems (Advance the reliability, performance, and scalability).

Distributed/Cloud Systems (Cloud and data-intensive processing systems; and memory & storage).

Wireless Communication Networks (R&D for LTE and 5G mobile communications networks).

Machine Learning (Systems and networks predictability).

EDUCATION

2018 - School of Electrical Eng. and Informatics, **Institut Teknologi Bandung (ITB)**, Bandung, Indonesia.

Present Undergraduate in Telecommunication Engineering, GPA 3.59 out of 4.0.

PUBLICATIONS

2020 **Fandi A. Wiranata**, Wervyan Shalannanda, Rahmat Mulyawan, and Trio Adiono. **Automation of Virtualized 5G Infrastructure Deployment Using Mosaic 5G Operator over Kubernetes Supporting Network Slicing** in the 14th International Conference on Telecommunication Systems, Services, and Applications (TSSA).

TALKS

2020 **Automation of Virtualized 5G Infrastructure Deployment Using Mosaic 5G Operator over Kubernetes Supporting Network Slicing** in the 14th International Conf. on Telecommunication Systems, Services, and Applications (TSSA).

EXPERIENCE

Feb 2021 - **Undergraduate Researcher at University of Chicago – US**

- Present
- Work with Prof. Haryadi S. Gunawi and his PhD students to conduct research on distributed systems and ML to reduce tail latencies.
 - Remote work from Indonesia in GIK Lab.

Jan 2021 **AUN-KU Winter Courses at Kyoto University – Kyoto, Japan**

- Student Mobility Program toward Human Security Development (HSD) that's designed for undergraduate students to study the concept of HSD and Energy Science.
- As one of 35 selected students from 10 countries of the ASEAN Uni. Network (AUN).

Sep 2020 – **Internship at Xirka Silicon Technology Inc. – Bandung, Indonesia**

- Oct 2020
- Developed Virtualized 5G Infrastructure using OpenAirInterface (OAI) on Xirka resources. The Virtualized 5G Infrastructure also support Radio slicing.
 - Supervised by Prof. Trio Adiono.

Jul 2020 – **Research Internship at NTUST – Taipei, Taiwan**

- Aug 2020
- Worked on Mosaic5G Project to integrate Mosaic 5G with several platforms (OAI, Kubernetes, Elasticsearch, and Operator SDK) to create virtualized 5G infrastructure.
 - Supervised by Prof. Ray-Guang Cheng.

Jan 2020 – **Pre-Research Intern at NTUST – Bandung, Indonesia**

- Mar 2020
- This is a remote research mentorship program for talented International students in collaboration at BMW Lab, NTUST.
 - Focused on studying LTE and 5G Architecture and having weekly report and assignment that teach me to stay productive. Supervised by Prof. Ray-Guang Cheng.

Jun 2019 - **Telecommunications Student Association – ITB**

- Present
- Be the part of the highest executive organization at Telecommunications Engineering major who manage and run students.
 - I made exercise books to improve student academic.

Oct 2018 - **Syamsi Dhuha Foundation – Bandung, Indonesia**

- Present
- SDF is an NGO that care on lupus and low vision.
 - Managed and run the biggest World Lupus Day and World Sight Day celebrations in Indonesia.

AWARDS

ITB	Top 4 Most Outstanding Student of ITB	2021
Faculty	The Most Outstanding Student of School of Electrical Eng. and Informatics, ITB.	2021
Major	The Most Outstanding Student of Telecommunication Engineering.	2021
Volunteer	Best volunteer at Syamsi Dhuha Foundation.	2020
Scholarship	Granted scholarships for monthly expenses from Syamsi Dhuha Foundation.	2020
Scholarship	Granted a full scholarship for my tuition fees during my study in Institut Teknologi Bandung. The details can be looked at the official website: www.itbuntutksemua.com .	2018

COMPETITIONS

On-going	Asia-Pacific	Indonesia representative for Huawei - ICT Competition in December	2021
1 st Place	National	Huawei - ICT Competition at Cloud Track , won USD2500. Next, representing Indonesia's Cloud team for Regional Asia-Pacific .	2020
3 rd Place	Regional	Huawei - ICT Competition Preliminary Stage at Cloud Track. Representing ITB's Cloud Team for National level .	2020
3 rd Place	National	Paper Writing Competition at State University of Surabaya. We built a reactor to improve pollution filtration which include monitoring systems .	2020
1 st Place	International	Sustainability Drives Innovation at University of Malaya, Malaysia . We created a green paddle efficiency design to improve the performance of boat.	2020
3 rd Place	International	Idea Competition (Hackathon) at ITB. We built an IoT system to solve the garbage problem by Integrating Eco-Friendly Trash Can and GoTrash App.	2019
1 st Place	National	Essay Writing Competition at ITB. We initiated a system to optimize waste that is Integrated Waste Quality Monitoring System .	2019
1 st Place	National	Industrial Engineering Scientific Fest at U. of Singaperbangsa Karawang. We initiate the use of snails as aggressive periodontitis prevention materials.	2019
4 th Place	National	Industrial Engineering Scientific Fest at U. of Singaperbangsa Karawang.	2019
Semifinalist	National	Paper Writing Competition at Indonesian Institute of Sciences (LIPI). Top 20 out of 3500 papers in social and behavioral sciences topic.	2017
Finalist	National	Industrial Automation and Robotic Competition at Institut Teknologi Sepuluh Nopember (ITS).	2016
Finalist	National	Paper Writing Competition at Indonesian Institute of Sciences (LIPI). We built a tool to optimize industry's air pollution filtration using Ca(OH) ₂ .	2016
1 st Place	National	Paper Writing Competition at State Polytechnic of Malang. We built a tool that utilize gravity and gear optimization to create renewable electricity .	2015

RESEARCH PROJECTS

CORTX : Improve the performance of Cortx-motr (Supervised by Prof. Haryadi S. Gunawi).	2021
SherpaNet : Blind Assistance Systems based on Deep Conv. Neural Network (Final Project at ITB).	2021
Mosaic 5G : Developed virtualized 5G infrastructure (in collaboration with Xirka Silicon Technology Inc.).	2020

PROFESSIONAL SERVICES

Testbed : Open Air Interface (OAI) and Mosaic-5G (Afiliation : NTUST-Taiwan and EURECOM).	2020
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SKILL CERTIFICATION

Cloud Computing	HCIA - Cloud Computing from Huawei . Capable of collaborating in the deployment and O&M of cloud computing with virtualization technology.	2020
Cloud Service	HCIA - Cloud Service from Huawei , have mastered cutting-edge knowledge and skills of public cloud and are proficient in using Huawei cloud service products.	2020
Artificial Int. (AI)	HCIA - AI from Huawei . Capable of using AI, ML/DL and other technologies to achieve the design, development and innovation of AI products and solutions.	2020

TEACHING ASSISTANT

ET2103	Electric Circuit Course at ITB .	2020
	<ul style="list-style-type: none">Given 2 hours/week to do in-class teaching about the fundamentals of electric circuit for 2nd-year students. I must spend ~10 hours/week for the TA-related tasks.Under Dr. Eng. Achmad Munir.	
EL1200	Introduction to Circuit Analysis Course at ITB .	2020
	<ul style="list-style-type: none">Given 2 hours/week to do in-class teaching about the basic concepts of electric circuits for 1st-year students. I must spend ~10 hours/week for the TA-related tasks.Under Dr. Eng. Achmad Munir.	

COURSE PROJECTS

Design and Optimization of Slotted Microstrip Antenna for 3.8-4.0 GHz Application.	2020
LoVi: Assistance System for Low Vision with Distance and Voice Alerts Using Deep Learning .	2020
Smart Parking System : Monitor and Control the Parking Lot.	2019

TECHNICAL SKILLS

ML/AI	Tensorflow and Keras .
Database	Familiar with Hive and MySQL .
Cloud Computing	Chameleon Cloud , Huawei-Cloud , and Huawei Fusion-Compute
OS	Hacking Linux kernel
DevOps	Experienced in projects using Kubernetes and Docker
Networking	Routing & Switching , Open Air Interface (OAI) , and Mosaic-5G .
IoT	Worked in projects using Arduino and NodeMCU .
PL	C , Python , Haskell , and Go .

I declare the details stated to be true and complete.
(CV updated on June 10, 2021)