Fandi A. Wiranata

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RESEARCH INTERESTS

Computer **Systems**, **Cloud** Computing, Wireless Communication **Networks** (i.e. LTE, 5G, Wifi), and SDN&NFV.

EDUCATION

2018 - Present — School of Electrical Eng. and Informatics, **Institut Teknologi Bandung (ITB)**, Bandung, Indonesia.
Undergraduate in Telecommunication Engineering, GPA 3.54 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 - Present — **Undergraduate Researcher at University of Chicago** – US
- Work with Prof. Haryadi S. Gunawi and his PhD students to conduct research on distributed systems 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 – Oct 2020 — **Internship at Xirka Silicon Technology Inc.** – Bandung, Indonesia
- 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 – Aug 2020 — **Research Internship at NTUST** – Taipei, Taiwan
- 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 – Mar 2020 — **Pre-Research Intern at NTUST** – Bandung, Indonesia
- 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 - Present — **Telecommunications Student Association** – ITB
- 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 - Present — **Syamsi Dhuha Foundation** – Bandung, Indonesia
- 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

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 volenteer** 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.itbuntuksemua.com.	2018

COMPETITIONS

On-going	International	**Interview stage** for **CERN Summer Student Programme** at Switzerland	2021
On-going	Asia-Pacific	**Indonesia representative** for **Huawei - ICT Competition** in April	2021
1st Place	National	**Huawei - ICT Competition** at **Cloud Track,** won USD2500**.** Next, **representing Indonesia's Cloud team** for **Regional Asia-Pacific.**	2020
3rd Place	Regional	**Huawei - ICT Competition Preliminary Stage** at **Cloud Track. Representing ITB's Cloud Team** for **National level.**	2020
3rd Place	National	**Paper Writing Competition** at State University of Surabaya. We built a **reactor** to improve pollution filtration which include **monitoring systems**.	2020
1st Place	International	**Sustainability Drives Innovation** at **University of Malaya, Malaysia.** We created a green paddle efficiency design to improve the performance of boat.	2020
3rd 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
1st Place	National	**Essay Writing Competition** at ITB. We initiated a system to optimize waste that is **Integrated Waste Quality Monitoring System.**	2019
1st Place	National	**Industrial Engineering Scientific Fest** at U. of Singaperbangsa Karawang. We initiate the use of snails as aggressive periodontitis prevention materials.	2019
4th 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
1st 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

TEACHING ASSISTANT

ET2103 **Electric Circuit Course** at **ITB**. — 2020
- 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
- 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.

RESEARCH PROJECTS

2021	**CORTX** : Distributed object storage system designed for great efficiency, massive capacity, and high HDD-utilization.
2021	**SherpaNet** : Blind Assistance Systems based on **Deep Convolutional Neural Network**.
2020	**Mosaic 5G** : Developed virtualized 5G infrastructure.

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

COURSE PROJECTS

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

TECHNICAL SKILLS

ML/AI	**Tensorflow** and **Keras**.
IoT	Worked in projects using **Arduino** and **NodeMCU**.
PL	Experienced in projects using **C**, **Python**, **Haskell**, and **Go**.
Database	Familiar with **Hive** and **MySQL**.
DevOps	**Huawei-Cloud, Kubernetes**, **Docker**, **OpenAirInterface**, and **Mosaic5G**.
Networking	**Routing & Switching** and **Cloud Computing**.

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