

HANSEN IDDEN

COMPUTER SCIENCE

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RESEARCH EXPERIENCE

International Research Collaboration on Storage and Memory Systems

Oct. 2022 - Nov. 2023

- Collaborating with **Prof. Huaicheng Li of Virginia Tech** and Prof. Ary Mazharuddin Shiddiqi of Sepuluh Nopember Institute of Technology, Supported by the MoECRT ACE Open Research program
- Make **DRAM-backed SSD Emulator (FEMU) accurately emulate the zoned interface latency** of an actual Zone Namespace (ZNS) device by adding **delay emulation mapping logic on FEMU ZNS SSD architecture**,
- Improving tail latency by optimizing **FEMU context switch interrupt** through **virtual timer interrupt** on **KVM** and **QEMU** tuning. Achieving **80% reduction** in context switches and **70% improvement** in tail latency under high workloads

Research Assistant, Sepuluh Nopember Institute Of Technology

Feb. 2022 - Oct. 2022

- Advisor: Prof. Dr. Diana Purwitasari, S.Kom., M.Sc.
- Create **Topic Modelling** for **social media posting** with GSDMM, LDA, and IndoBERT + K-Means
- Labelling social media posting data for **Named Entity Recognition**
- Analyze **social media user's behaviour** in postings

EDUCATION

Virginia Tech, United States – [vt.edu](https://www.vt.edu)

Aug. 2024 - Expected Aug. 2029

- Doctor of Philosophy, Computer Science
- GPA : **3.85/4.00**

Sepuluh Nopember Institute Of Technology (ITS), Indonesia – [its.ac.id](https://www.its.ac.id)

Sept. 2020 - Apr. 2024

- Bachelor of Science, Computer Science
- Overall GPA : **3.77/4.00**, Major GPA : **3.74/4.00**

PATENTS

IProctor: AI-based Assessment Monitoring Application

2021

- Advisor: Dini Adni Navastara, S.Kom, M.Sc.
- Responsible in creating the **face recognition** to **verify the person** and **predict the confidence level** of a person cheating

WORK EXPERIENCE

Data Scientist Intern

Bukit Vista Property Management

Bali, Indonesia (Nov. 2021 - Feb. 2022)

- Create a **guest review-based property classification model** to **boost sales engagement**
 - Increased booking rates by > 10%
- Deploy models to Bukit Vista server using Flask
- Create a **topic modelling model** based on review used by 3 teams to **promote properties** with the right selling value

Bangkit Academy by Google 2020

Machine Learning Path

Jogja Cohort (Jan. 2020 - Jun. 2020)

- **Top 3 out of 51 participants** Bangkit Final Project Jogja Cohort
 - Creating breast cancer detection website
- **Youngest Graduates**

TALKS

Research in NLP and Text Pre-processing

BISA.AI

(Nov. 2021)

- Talks about the developing **AI research** especially in **NLP field**

- Give insight of NLP research papers and uprising topic for NLP
- Demonstrate ways to tackle **text pre-processing** to make a clean dataset
 - Discussing the strategy to ensure data entrigity and the importance of clean dataset.

AWARDS

Garuda Hacks 2.0 Hackathon	Nov. 2021
<ul style="list-style-type: none"> - Best Sustainability Hacks <ul style="list-style-type: none"> - The best projects out of 500 participants for the environment - Ecoxyztem Award <ul style="list-style-type: none"> - Award from Ecoxyztem company for the best Climate Tech project - Developed Recycle-Me app that gamifying recycling processes - Create and deploy a garbage classification model for Recycle-Me app 	
Quadrathlon 2021	Nov. 2021
1 st out of 45 participants in Data Mining division	
GEMASTIK XIV	Oct. 2021
4 th – 10 th Finalist of Data Mining Divisions, out of > 2000 participants nationally	
Quadrathlon 2020	Nov. 2020
1 st out of 36 participants in Competitive Programming division	
2 nd out of 60 participants in Data Mining division	
3 rd out of 33 participants in Capture The Flag division	
National Sebelas Maret Mathematics Competition	Dec. 2019
1 st out of > 200 participants	

TECHNICAL SKILLS

System Hacking Experience Linux Kernel (KVM), FEMU
PL C, C++, Python, Java, JavaScript, SQL, Laravel, Bash, Go, Latex
AI Tensorflow, Pytorch, Keras
DB PostgreSQL, MySQL, SQLite
Tools & UNIX commands GNUPlot, QEMU, Make, awk

ORGANIZATION AND VOLUNTEERING

Data Mining Community, HMTC ITS	(Jan. 2021 - Dec. 2021)
Committee	
<ul style="list-style-type: none"> - A community for Computer Science students to learn and improve in Data Science - Hosting data science seminars with prominent Indonesian Data Scientists as a speaker to share their insightful experiences and industry expertise 	
Intelligence and Vision Computational Laboratory, Informatics ITS	(Jan. 2022 - Dec. 2023)
Coordinator	
<ul style="list-style-type: none"> - Managing the laboratory and some events held by the department - Helping ITS Informatics lecturers that are part of our lab as a Research Assistant 	