

# HANSEN IDDEN

COMPUTER SCIENCE

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## EDUCATION

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

Aug. 2024 - Expected Aug. 2029

- Doctor of Philosophy, Computer Science

### 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**

## RESEARCH EXPERIENCE

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### 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

## PATENTS

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### 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

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### 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

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### 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 integrity and the importance of clean dataset.

## AWARDS

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

## TECHNICAL SKILLS

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**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

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