# Filbert Aurelian Tjiaranata

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## Research Interests

I am interested in advancing natural language processing toward developing safe, robust, fair, transparent, and reliable AI systems that understand human language across multilingual and multimodal contexts.

### **EDUCATION**

#### Universitas Indonesia

#1 University in Indonesia [QS WUR]

o **GPA**: 3.85 / 4.00

Bachelor of Computer Science Aug 2023 – Jul 2027 (Expected)

## Research Experience

System and AI Research Training Program, University of Chicago Aug 2025 – Jan 2026 International research training program instructed by **Prof. Haryadi Gunawi**, University of Chicago

- Selected as one of the 50 top Indonesian computer science students nationwide
- Reviewed 40+ technical papers from ACL, EMNLP, NAACL, EACL and COLM.
- Reproduced textual Event Extraction paper and brainstormed for future works.

#### Research Collaboration

Jul 2025 - Present

Remote Research Collaboration with **Asst. Prof. Alham Fikri Aji**, MBZUAI on backdoor attacks and PII (Personally Identifiable Information) leakage in knowledge distillation settings.

#### SEACrowd Community

A research community dedicated to advancing Southeast Asian-focused AI and empower the next generation of SEA AI researchers, led by **Holy Lovenia**, SIGSEA president.

- o Co-author of SEA-VL: A Multicultural Vision-Language Dataset for Southeast Asia
- Contributor of SEA-VL Phase 2: Building Culturally Relevant VLMs for Southeast Asia.

#### **EleutherAI**

A grassroots AI research collective focused on interpretability and alignment of large models.

- Contributed to the Multilingual Physical Reasoning Datasets: Shared Task for the MRL Workshop at EMNLP 2025. Responsible for curating and validating the Indonesian portion of the dataset. The datasets are prepared for Global PIQA Benchmark [sigtyp.github.io/st2025-mrl.html].
- Building a large-scale Multilingual Natural Instructions dataset by crawling online forums, Q&A boards, and test databases. Responsible for crawling, cleaning, and validating the Indonesian dataset.

#### **Common Crawl Foundation**

A non-profit organization that builds and maintains an open, multi-petabyte repository of web crawl data for public research, analysis, and education.

- Participated in the Shared Task on Improving Language Identification for Web Text from the 1st Workshop on Multilingual Data Quality Signals at COLM 2025 [wmdqs.org/shared-task].
- Contributed to the Common Crawl's web-languages project by adding Indonesian-language websites to expand the representation of it in their web crawl data [github.com/commoncrawl/web-languages].

## **PUBLICATIONS**

- o Samuel Cahyawijaya, Holy Lovenia, Joel Ruben Antony Moniz, Tack Hwa Wong, Mohammad Rifqi Farhansyah, Thant Thiri Maung, ..., Filbert Aurelian Tjiaranata, ..., Peerat Limkonchotiwat. Crowdsource, Crawl, or Generate? Creating SEA-VL, a Multicultural Vision-Language Dataset for Southeast Asia. In *Proceedings of the 63rd Annual Meeting of the Association for Computational Linguistics (ACL)*, 2025. aclanthology.org/2025.acl-long.916
- Filbert Aurelian Tjiaranata, Vallerie Alexandra Putra, Eryawan Presma Yulianrifat, and Ikhlasul Akmal Hanif. BUINUS at IWSLT: Evaluating the Impact of Data Augmentation and QLoRA-based Fine-Tuning for Maltese to English Speech Translation. In *Proceedings of the 22nd International Conference on Spoken Language Translation (IWSLT)*, 2025. aclanthology.org/2025.iwslt-1.26

## Honors and Awards

<ul> <li>Scholarship Awardee – National, Beasiswa Bakti BCA</li> </ul>	Jan 2025 – Dec 2025
<ul> <li>1st Place – Southeast Asia, Data Analysis Competition</li> <li>Data analysis competition by Sepuluh Nopember Institute of Technology</li> <li>Applied time series forecasting to enhance solar power system efficiency</li> </ul>	Oct 2024
<ul> <li>Best Presentation - National, DataQuest Objective Quest</li> <li>Data science competition by Airlanga University</li> <li>Finetuned a machine learning model to classify network traffic types</li> </ul>	Sep 2024
$\circ$ Honorable Mention – Asia Pacific, ICPC Regional Asia Jakarta	Dec 2024
o 27th Place – National, ICPC Indonesia National Contest (Asia Jakar	Oct 2024
o Honorable Mention – Asia Pacific, ICPC Regional Asia Jakarta	Dec 2023
o 19th Place – National, ICPC Indonesia National Contest (Asia Jakar	rta) Nov 2023
$\circ$ 2nd Place – University, Data Competition, RISTEK Fasilkom UI	Nov 2023
$\circ$ 39th Place – National, OSN Informatics (Indonesian Olympiad)	2022
$\circ$ 4th Place – Provincial, OSN Informatics (Indonesian Olympiad)	2022
∘ 1st Place – City Level, OSN Informatics (Indonesian Olympiad)	2022
$\circ \ 1st \ Place-City \ Level, \ OSN \ Informatics \ (Indonesian \ Olympiad)$	2021

## Working Experience

#### Programming Coach, Kokocoder

Jul 2023 – Oct 2025

- Conducted weekly private sessions covering basic to intermediate competitive programming concepts.
- Co-lead six one-week Informatics Olympiad training bootcamps, mentoring 13 gold, 17 silver, and 29 bronze medalists in OSN Informatics (Indonesian Olympiad) over three years of the program.

#### AI R&D, Fungsitama Cipta Teknologi

Jan 2025 – Mar 2025

- AI Research and Development Intern working on ERP-related AI solutions.
- Integrated Chatbot APIs to dynamically generate SQL queries for real-time data retrieval.
- Integrated Vision-Language Models (VLMs) to automate employee registration from ID documents.
- Built a retrieval-based search feature, reducing material group input errors by 90%.

#### Teaching Assistant, Universitas Indonesia

Jul 2024 - Dec 2024

- Teaching Assistant for Discrete Mathematics (60+ students) in the Faculty of Computer Science.
- o Collaborated with lecturers to support assessments and student learning.
- Created assignments and solutions to reinforce core theoretical concepts.

## Leadership & Service

#### Expert Staff, Data Science Academy, Compfest

Feb 2024 - Sep 2024

- Responsible for developing the Data Science Academy curriculum.
- Helped evaluate over 600 applicants based on programming and data science skills.
- Reached out to 10+ data science professionals, securing 5 speakers, judges, and mentors.

#### Student Mentor, DDP 0

Jun 2024 – Sep 2024

- Student Mentor for first-year Faculty of Computer Science, Universitas Indonesia students in introductory programming.
- Led 4 offline sharing sessions and assigned problems to strengthen computational thinking.
- Provided academic guidance and peer support to help students adapt to university life.

#### Student Mentor, UKM KMBUI

Jun 2024 – Sep 2024

- Introducing university life and academic opportunities at Universitas Indonesia.
- Mentored students from diverse majors in transitioning to campus life.

#### Volunteer, Foster Village Project (Dusun Krecek)

Aug 2024

- Contributed to the digital promotion of a local village as a tourist destination.
- Helped organize educational events covering health, financial literacy, and community awareness.

## SKILLS

Language Indonesian (Native), English (Fluent, IELTS Band 7.5), German (B1).

Programming Language Python, C++, Java, SQL, HTML, CSS, JavaScript

AI/ML Libraries PyTorch, pandas, NumPy, scikit-learn, Matplotlib, Hugging Face Transformers

#### REFERENCES

#### Prof. Haryadi Gunawi UChicago-Indonesia research instructor

Professor, Department of Computer Science, University of Chicago

Email: haryadi@cs.uchicago.edu

Profile: cs.uchicago.edu/people/haryadi-gunawi

#### Asst. Prof. Alham Fikri Aji Research Collaborator

Assistant Professor, Mohamed bin Zayed University of Artificial Intelligence (MBZUAI)

Email: alham.fikri@mbzuai.ac.ae

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#### Alfan Wicaksono, S.T., M.Sc., Ph.D. Academic Advisor

Coordinator of Computer Science Undergraduate Study Program, Universitas Indonesia

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Profile: cs.ui.ac.id/en/personnel/alfan-farizki-wicaksono

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