Sebastian Hung Yansen

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A highly motivated individual with a strong passion for problem-solving and computational thinking. Seeking to contribute to innovative projects and further develop skills in the field of computer science.

EDUCATION

Institut Teknologi Bandung, *BS in Computer Science* | Bandung, Indonesia CGPA: 3.45 / 4.0 2023 - Present

Courses: Software Engineering | Artificial Intelligence | Machine Learning | Algorithm Strategies | Web Based Development | Games and Digital Reality | Interaction Engineering.

SKILLS

Programming	Python, SQL, C/C++, Java, Golang, Haskell, Prolog, JavaScript/TypeScript
Web Development	React, Node.js, PHP, HTML, CSS
Database & Deployment	PostgreSQL, MySQL
Tools & Others	Git, Linux, Docker, Virtual Machine

WORK EXPERIENCES

STEI ITB, *SysAdmin Assistant* | Hybrid (Bandung, Indonesia) Aug 2025 – Present

- Managed the institution's Google Workspace and mailing lists, overseeing user account creation, deletion, and password security for students, lecturers, and staff.
- Setup computers, servers, and networks for lab sessions, maintenance, and other uses by the faculty and its members.

VOLUNTEERING EXPERIENCES

Mini Concert The Twilight Serenade: Tomorrow Be Ours Event, *Leader, Manager, Player* | On-site (Bandung, Indonesia) Nov 2023 – Feb 2024

- Monitored, supervised,and lead everyone in organizing a concert
- Performed many orchestral pieces, both classical and non-classical, as a clarinetist and a cellist

STEIK CUP 2023, *Streaming Division Staff* | Remote (Bandung, Indonesia) Sep 2023

- Managed technical streaming operations for esports events, maintaining broadcast stability and audio-visual quality throughout the tournament.
- Coordinated Talent Management by synchronizing with other divisions in providing live commentary for esports events.

ORGANIZATIONS

ITB Student Orchestra (ISO), Bandung, Indonesia Sep 2024 – Present

- Music Director (Dec 2025 - Present)
  - Collaborated with other music directors to coordinate and achieve the vision and mission of the Semi-Autonomous Body of ISO.
  - Assist in making ITB Student Orchestra a forum in developing character and potential members in music.
  - Hold independent orchestral performances and organize musical activities.

HONORS AND AWARDS

[National] Finalist, Informatics Festival 2025 (Hackathon Competition) Sep 2025

- Achieved finalist status in a national-scale hackathon competition organized by IFEST UNPAD, Recognizing the use of AI in mastering the digital era across major.

[National] Finalist, ProtoTech Contest (Prototype Innovation Competition) Apr 2025

- Achieved finalist status in a national-scale prototype innovation competition organized by IEEE ITB Student Branch, recognizing dedication and creativity in advancing healthcare solutions.

PAPERS

Use of BFS and DFS Algorithms for Solving the Rescue Plan Puzzle Toy Jun 2025

- Modeled a physical puzzle as a state-space graph and conducted a comparative analysis between BFS and DFS algorithms to evaluate path optimality versus execution speed.
- Paper available at: Use of BFS and DFS Algorithms for Solving the Rescue Plan Puzzle Toy.pdf

Use of Dijkstra's Algorithm for NextBot Navigation in Source Engine Games Jan 2025

- Analyzed and implemented Dijkstra's algorithm using navigation meshes in Garry's Mod to solve shortest-path problems for AI entities within dynamic 3D environments.
- Paper available at: Use of Dijkstra's Algorithm for NextBot Navigation in Source Engine Games.pdf

Use of Singular Value Decomposition for Signature Verification in WarioWare Gold Jan 2025

- Developed a Python-based verification system using Singular Value Decomposition (SVD) to decompose signatures into principal components, optimizing for numerical stability in resource-constrained environments.
- Paper available at: Use of Singular Value Decomposition for Signature Verification in WarioWare Gold.pdf