Ahmad Ghalib Athariq

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Introduction

Programmer with interest in systems-level software and modern AI/ML. I enjoy (self)-learning across domains and working on problems that demand both technical depth and curiosity.

Education

Universitas Sumatera Utara   Medan, Indonesia
BS in Computer Science (S.Kom.)   *Sep 2021 – July 2025*

- **Thesis Topic:** Computer Vision in Agriculture
- **Coursework Highlights:** Computer Organization & Architecture, Algorithms, Computer Vision, Computer Networks
- **Advisors:** Dr. Pauzi Ibrahim Nainggolan; Seniman S.Kom., M.Kom.
- **GPA:** 3.67/4.0 (distinction)

Work Experience

PT Xtend Integrasi Indonesia (software house)   Medan, Indonesia
Backend Developer   *Nov 2024 – Jan 2025*

- Developed secure web APIs for a TNI AD's information system and an in-house ERP product.
- Collaborated closely with the team lead to ensure correct delivery of requested features.

GeometriSatu Studio (game development team)   Medan, Indonesia
Game Developer Intern   *Sep 2024 – Nov 2024*

- Developed and designed a reward-based educational mobile game (ScienceOne) in the Unity Game Engine.
- Participated in weekly meetings with the project manager to discuss progress.

PT Len Industri (Persero) (defense technology company)   Bandung, Indonesia
Desktop Developer Intern (Magang Merdeka)   *Feb 2024 – Jun 2024*

- Accelerated Link Monitoring & Control (LMC) application development toward operational readiness by successfully integrating it with the company's proprietary Data Link Processor software.
- Developed network socket-level systems designed by the lead software engineer.
- Developed comprehensive unit tests for new and existing modules.
- Enhanced software stability and reliability by meticulously analyzing output logs to identify and resolve critical bugs.

Revolutionary Games Studio (game development team)   Online-based (international)
Volunteer Programmer   *Jan 2020 – 2024*

- Spearheaded development of gameplay features, user interface and contributed bug fixes.
- Contributed over 350+ commits and 400k line additions to the codebase – accelerating the development of the game in 3-year span.
- Ensured codebase quality and maintainability by performing rigorous code reviews on pull request submissions to the project's GitHub repository.

Projects

Portfolio: www.athrqlib.my.id/projects *(for additional information and projects)*

Lettuce Plant Growth Estimator (2025)   🔗 Repository Link

- Engineered an efficient, mobile-first computer vision solution to enable non-destructive estimation of lettuce growth-related phenotypes, potentially supporting low-cost precision agriculture methods.
- Designed a modified lightweight SSDLite-MobileViT (Mehta & Rastegari, 2022) deep learning model with <10 M parameters, utilizing dual-branch architecture.
- Successfully ran model on-device with inference time of <600 ms/frame, qualifying for near real-time application.
- <u>Tools Used:</u> PyTorch, OpenCV, ExecuTorch, Android

Upahkita.id: Indonesian Salary Data Platform (active 2024 - Jun 2025)   upahkita.id

- Conceptualized and self-built a full-stack data platform to provide transparent, geographically-visualized salary data for the Indonesian market. Was deployed to a $3/mo VPS.
- Designed a data ingestion pipeline with change data capture (CDC) to support full-text data search using MeiliSearch.
- Made to prove that building a full-blown end-to-end web app is possible alone and efficiently, by using today's tech stacks.

- Tools Used: Next.js, TypeScript, Golang, PostgreSQL, Meilisearch

MixTime: e-Menu Platform (active until Dec 2024)   mixtime.rf.gd
- Developed a web-based soft-drinks menu for a F&B shop with admin (CRUD) functionalities.
- Utilized third-party image hosting service's (ImgBB) RESTful API to store product images off-site.
- Tools Used: Laravel, Livewire, PHP, MySQL, TailwindCSS, HTML/CSS, Git

Space Shooter Game (CMD-based, 2023)   🔗 Repository Link
- Developed a Windows-native game, fully running on a command-prompt window.
- Integrated DirectSound to create a custom audio engine.
- Tools Used: Windows API (WinAPI), C++, CMake, Visual Studio

Organization

Ikatan Mahasiswa Ilmu Komputer USU, Communications and Information Staff   *Sep 2023 – Sep 2024*
- Initiated a design overhaul of IMILKOM USU's official website: imilkom.usu.ac.id
- **Skills:** Trello, Teamwork, Communication, Responsibility, Patience

Google Developer Students Club (GDSC) USU, Member   *2023 – 2024*

Skills

Languages: Indonesian - Native, English - Bilingual

Programming Languages: C#, C++14, Python, Java, Golang, (Type/Java)Script, HTML, CSS, other webdev things

Technologies: Ubuntu, Windows, WSL, Android, Jupyter/Colab, Docker, PostgreSQL, VPS, Nginx

Developer Tools: VSCode, Visual Studio, Git, JetBrains IDEs, MSVC, CMake, vcpkg

Game Dev: Unity3d, Godot, Blender, Audacity, SDL

Other: LaTeX, Krita, Badminton (amateur)

Certifications

Magang Bersertifikat Batch 6
Certified Internship, PT Len Industri (Persero), Received 12 July 2024

Magang Generasi Bertalenta BUMN
00062/MAGENTA/FHCI01/9/24, Grade A, Received 4 September 2024

Cloud Practitioner Essentials
Dicoding, 1RXY1627QPVM, Received 22 December 2023

Back-End Application Basics
Dicoding, 07Z6WGKR2ZQR, Received 15 December 2023

Seminars

Fasilkom-TI USU
Participant, IEEE Educational Activities Committee Workshop on GenAI, 15 September 2025

Google Developer Group on Campus Indonesia
Participant, Talk Series 5: Integrating Embedded Systems for Autonomous Robotics Development, 26 August 2025

Volunteering

REFACTOR 2023
CS USU, Welcoming Freshmen, Media & Creative Team, September 2023

Student's General Elections Committee
USU, Student Executive Body, Media & Creative Team, December 2022

Computer Science Anniversary 2021
CS USU, Department Birthday Event, Media & Creative Team, December 2021

Miscellaneous Achievements

- Won 3rd place (9-person team) for best project in MKWK Fair USU 2022
- Top 5 in several local small-scale type racing competitions (2014 - 2024)
- 1st place on the leaderboard for plane dogfighting in Heroes & Generals (peak +10k online players, now defunct)