GAILLE A. AMOLONG

AI Engineer │ Senior Full-Stack & DevOps Engineer

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SUMMARY

Results-driven software engineer with 3+ years delivering production-grade web, mobile, and AI solutions. Expert in React/Next.js, React Native, Django/FastAPI, and AWS cloud-native architectures. Passionate about automating delivery, writing clean code, and transforming ideas into scalable products. Recognized as a top-ranked developer on CodersRank and the youngest AI/Software Engineer at BitWork Solutions.

SKILLS & INTEREST

- **Languages:** Python, JavaScript/TypeScript, C/C++, SQL (PostgreSQL, SQLite), NoSQL (MongoDB)
- **Frameworks & Libraries:** React, React Native, Next.js, Django, FastAPI, Flask, Node.js, Express, TensorFlow, PyTorch, OpenCV, Scikit-learn, Pandas, NumPy
- **Cloud & DevOps:** AWS (EC2, ECR, ECS, EKS, S3, SES, Route 53, ALB, Auto Scaling), Docker, GitHub Actions, NGINX, Directus CMS, Stripe, OAuth2/OIDC & Apple SSO, Cypress, Jest, Pytest
- **Tools:** Git, VS Code, Jira, Figma, Postman, Linux, Git Submodules, Railway, Docker Compose

WORK EXPERIENCE

BitWork Solutions — Software Engineer → Senior Full-Stack & DevOps Engineer
August 2023 - Present
Melbourne, Florida (Remote), USA

- Spearheaded container-first DevOps transformation
  - Wrote multi-stage Dockerfiles for 15+ micro-services and internal CLI tools.
  - Designed GitHub Actions pipelines for test, build, security scan, and blue-green deploy, shrinking release time 6× and guaranteeing < 60 s rollback.
- Architected a self-healing AWS platform
  - Provisioned EC2, ECR, ECS Fargate, EKS, ALB, Auto Scaling, SES & S3 using Terraform modules.
  - Introduced CloudWatch logs + metrics-based scaling, sustaining 99.98 % uptime while trimming monthly spend 18 %.
- Modernised monolithic apps to a React/Next.js ecosystem
  - Migrated 4 portals to Next.js 13 + App Router + TailwindCSS + TypeScript, lifting Lighthouse scores to 95+ and reducing bundle size 45 %.
  - Implemented atomic-design UI pattern and Storybook for reusable components consumed by web & mobile.
- Delivered a cross-platform React Native mobile experience
  - Bootstrapped Expo bare workflow; shared ≈70 % codebase with web via NX monorepo.
  - Integrated REST APIs served by Django/FastAPI back-end for real-time features.
- Implemented secure auth & subscription flows
  - Rolled out OAuth2/OIDC, Apple SSO, and passwordless magic-link login.
  - Integrated Stripe Checkout, Billing Portal, and webhooks for subscription management and seat-based metering.
  - Contributed Directus CMS permissions, empowering non-tech editors and reducing content release tickets 60 %.
- Led computer-vision research for Badge Guru
  - Prototyped OpenCV pipelines (grayscale normalisation, perspective correction, vector processing, inset rasterization, glare removal).
  - Devised affine-scaling algorithm using ArUco markers and solved mathematical model to map pixel-mm ratios—improving engraving accuracy 25 % and throughput 40 %.
- Championed quality & security
  - Established Cypress e2e, Jest unit, Pytest API test suites (coverage 82 %).
  - Mentored 2 developers through weekly tech talks and pair-programming sessions.

AI Pilipinas — Lead Software Developer Volunteer
August 2024 - March 2025
Hybrid • Metro Cebu, Philippines

- Orchestrated the launch of the AI Pilipinas portal (staging.aipilipinas.org), supervising a 6-member engineering cohort across front-end, back-end, and DevOps.
- Delivered a modular Next.js/TypeScript UI, FastAPI micro-back-end, and NGINX; non-technical authors can now publish in < 5 min.
- Implemented GitFlow, code-review rubric, and staging previews—doubling PR throughput and cutting prod defects 35 %.

Scriptonomy — AI in Finance Technical Writer
January 2025 - March 2025
Remote

- Authored 10 long-form guides on quantitative investing with Python, TensorFlow, and broker APIs; series amassed 12 k+ reads and a 4.8/5 avg rating.

Head Developer, Minglanilla Science High School
March 2023 - March 2024
Minglanilla, Cebu, Philippines

- Delivered the school's official web app (news portals + custom homepage) using Django + JavaScript, now serving 1.2 k monthly users.
- Added reCAPTCHA, secure authentication, and Docker/Railway CI; 0 downtime reported since launch.
- UX revamp increased average session duration 35 % and earned commendation from the school principal.

Full-Stack Freelance Software Developer, TidalStack
January 2024 - March 2024
Remote

- Built RESTful APIs with Django REST Framework and designed responsive UI components.
- Optimised PostgreSQL queries, reducing average response latency 28 %.

EDUCATION

Cebu Institute of Technology   **Cebu City, Cebu, Philippines**

Bachelor of Science in Computer Science (2024-2028)

Minglanilla Science High School   **Minglanilla, Cebu, Philippines**

High School - STEM Strand   *High Honors & Excellency in Research and Innovation*

- **Project PhEASYCS** - Physics Excogitation Utilizing Artificial Intelligence System (Deep Neural Network) To Yield Comprehension for Students
- **Thesis (Qualitative study)**: The Role of Artificial Intelligence in Organizational Structure and Culture of Employees in the IT company

CERTIFICATIONS

For more information of Gaille's certifications, click this link: https://gailleamolong.vercel.app/certifications

Harvard University (2020-2023) - 5 courses
- **CS50P** - Introduction to Programming with Python
- **CS50X** - CS50's Introduction to Computer Science
- **CS50Web** - Web Programming with Python and JavaScript
- **CS50AI** - Introduction to Artificial Intelligence with Python
- **CS109x** - Data Science with Python

Yale University (2024)
- Financial Markets Course

Udemy
- NextJS and React - The Complete Guide

DeepLearning.AI & Stanford (2023-2024) - 5 courses
- Neural Networks & Deep Learning
- Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization
- Structuring Machine Learning Projects
- Convolutional Neural Networks
- Sequence Models

AWS Cloud Solutions Architect Professional Certificate
- AWS Cloud Solutions Architect Professional Certificate (Coursera)

FEATURED PROJECTS

- **The Official MSHS Website** - https://www.officialmingsci.com/
- **A.R.T.I.S.T (Artificial Real-Time Image Style Transformer) AI** - https://github.com/gael55x/ARTIST
- **MusicAI** - https://github.com/gael55x/MusicAI
- **PhEASYCS AI model** - https://github.com/gael55x/Physics-QandA-AI-System
- **Car-Detection-AI-Model** - https://github.com/gael55x/Car-Detection-AI-model-
- **Algo-AI model** - https://github.com/gael55x/Algo-AI
- **MessageMe** - https://github.com/gael55x/MessageMe
- **Gaille's Blog Post** - https://gael55x-blog.vercel.app/
- **Gaille's Portfolio** - https://gailleamolong.vercel.app/

AWARDS & HONORS

- Top 1 % Global Developer — CodersRank profile (2023–present)
- Top 0.7 % Next.js • Top 2 % React, Flask, SQLAlchemy • Top 3 % Django developer worldwide — CodersRank
- Top 5 % Developer in the Philippines across Django, C, NumPy, ReactJS, SQLAlchemy, TensorFlow & Flask — CodersRank analytics
- Youngest Software & AI Engineer at BitWork Solutions — joined full-time at age 17
- Excellence in Research & Innovation Award — Minglanilla Science HS (2024)
- 4th Place, Division Science & Technology Fair — PhEASYCS AI Model (High School)

SKILLS & INTEREST

Programming Languages: Python, JavaScript/TypeScript, C/C++, SQL (PostgreSQL, SQLite), HTML/CSS, NoSQL (MongoDB)
Frameworks & Libraries: React, React Native, Next.js, Django, FastAPI, Flask, Node.js/Express, TensorFlow, PyTorch, OpenCV, Scikit-learn, Pandas, NumPy
Cloud & DevOps: AWS (EC2, ECR, ECS, EKS, S3, SES, Route 53, ALB, Auto Scaling), Docker, GitHub Actions, Terraform, NGINX, Directus CMS, Stripe
Tools: Git, VS Code, Jira, Figma, Postman, Linux, Railway, Docker Compose
Soft Skills: Problem-solving, clear technical communication, mentoring & team leadership, cross-functional collaboration
Hobbies & Interests: Algorithmic trading, leetcode (solved 540+ problems) physics, open-source, hackathons, travel, teaching budding engineers