# DYNE CHRISTELLE H. SOMBERO

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#### **EDUCATION**

## **Notre Dame of Marbel University, Philippines**

Koronadal, Ph.

Bachelor's of Science in Computer Science

Sept. 2022- May 2025

- Award: Best Student Research in our Research Forum 2025 (Data Science and Algorithm Category).
   Thesis on "Improving Prediction of Infectious Disease Outbreaks using Attention-based Long Short-term Memory (LSTM) Model with Honey Badger Optimization for Hyperparameter Tuning"
- **Related Coursework:** Computing in Python, Object-Oriented Programming, Statistics and Applications, Discrete Mathematics, Data Science and Algorithm

## **WORK EXPERIENCE**

#### Freelance Full Stack Developer

Gensan,Ph

Self-employed / Remote

May 2021-Present

- Developed and deployed full-stack web apps using React (frontend) and Express.js API (backend) with MongoDB.
- Delivered tailored solutions for 3+ clients, increasing performance and usability by 30%.
- Built secure RESTful APIs with Express.js, handling 100+ daily user requests with JWT authentication.
- Integrated Cloudinary for image upload, optimization, and storage, enhancing media performance by 40%.
- Deployed apps to Vercel and Render with 99.9% uptime, managing source control with 100+ Git commits.

#### Provincial Government of South Cotabato - Information Technology Division

Koronadal, Ph

May 2024- July 2024

Full-Stack Developer OJT

- Developed a full-stack data banking system using ASP.NET (C#), improving data retrieval speed by 30%.
- Designed and optimized SQL queries, reducing report generation time by 40%
- Collaborated in a 5-person Agile team, contributing to 90% of front-end UI components and backend integration.
- Used GitHub Desktop to manage 15+ pull requests, resolving code conflicts and ensuring smooth version control.

## **PROJECTS**

#### **Real Estate Website UI**

Next.js | Typescript | Tailwind CSS

- Designed and implemented a fully responsive front-end interface compatible with mobile, tablet, and desktop devices, reducing layout breakpoints by 80% compared to initial wireframes.
- Built and styled 20+ reusable components (property cards, feature badges, blog previews, testimonials) with TailwindCSS, streamlining
  development and ensuring design consistency.
- Optimized accessibility and SEO readiness, achieving 97%+ Lighthouse scores and enhancing user experience with structured property categories, feature highlights, and testimonials for clearer navigation.

# PEMO (Provincial Environment and Management Office) Data Banking

ASP.Net | C# | Microsoft SQL Server | Azure

- · Migrated a legacy environmental website into a modern, searchable SQL-based web application.
- Enabled department staff to access data 70% faster, improving report creation and policy decision-making.
- Implemented CRUD features with zero major bugs reported during testing phase.

## **E-commerce**

MongoDB | Express JS | React.js | Node.js

- Engineered a full-stack e-commerce system supporting real-time checkout and handling 100+ products.
- Integrated REST APIs, MongoDB, and frontend optimizations to reduce load time by 60%.
- Designed user authentication system with JWT and secure password hashing, protecting user data for over 100 test user.

Digital Planner Figma

- Designed a planner app prototype tested by 10+ users, with a usability satisfaction rating of 92%.
- Reduced navigation time by 40% using smart UI/UX layout principles like baseline mockups.
- Incorporated 4 core features (calendar, task tracking, reminders, personalization) based on user needs.

### **Prediction Model**

## | Python | Google Colab | KNIME | VisualCrossing | GoogleEarthEngine

- Developed an LSTM-based Al model in Python (TensorFlow/Keras) with 85% accuracy for dengue outbreak prediction using historical health and climate data.
- Applied Honey Badger Optimization (MATLAB) to tune hyperparameters, reducing model training time by 25%, and processed 12,000+ data points using KNIME.
- Utilized GitHub Copilot for efficient code generation and Google Colab for scalable cloud-based model training and testing.

## **SEMINARS**

# Philippine Society of Information Technology Students Regional Convention

Gensan, Ph.

 Represented my school and collaborated with fellow IT students from different regions, fostering professional connections and sharing best practices. April 28-29 2023

## Campus DevCon (Developers' Connect) Davao

**Gensan, Ph.** *May 12,2023* 

 Gained insights into cloud computing and AI tools through keynote sessions, workshops, and interactives led by industry experts.

# **SKILLS**

Languages: C#, Python, JavaScript, TypeScript

Web Technologies & Tools: React.js, Next.js, Node.js, ASP.NET, HTML5, CSS3, Tailwind CSS, Express.js

Databases & Cloud Platforms: Microsoft SQL Server, MongoDB, Azure, AWS, Vercel

AI, Data & Analytics Tools: KNIME, Google Colab, Google Earth Engine, Github Copilot, LLMs, ML tools

CI/CD & Version Control: Git, GitHub, GitHub Desktop