

PROFILE

<https://sweep-portfolio.vercel.app>

With a unique blend of technical and analytical skills, I am passionate in using data science related technology such as predictive and classification models. I have experience in data wrangling, analysis, and visualization to extract actionable insights that inform business decisions. I also aspire to be skilled in software development to wield frameworks in creating user-friendly interfaces and backend solutions that address business requirements.

EDUCATION

UNIVERSITY OF SAN CARLOSWebsiteCebu City, Cebu

Bachelor of Science, Major in Computer Science (GWA 1.57)Expected Jan, 2026

Dean's Lister (2023 & 2024)

Relevant Coursework: Data Structures and Algorithms, Algorithms and Complexity, Software Engineering, Systems Analysis and Design, Web Development, Object-Oriented Programming, Application Development.

EXPERIENCE

- GABTECH - Data Analyst / Research Analyst (Contract)Remote · January - April 2025
- Engineered end-to-end ETL pipelines for ingesting and transforming multi-source business data across departments.
 - Conducted advanced exploratory data analysis (EDA) and developed machine learning prototypes.
 - Collaborated cross-functionally with product and engineering teams
- TALLECO JOB TARGET - Data Scientist Intern (Internship)Remote · August - November 2024
- Trained in industry level database management skills, to maintain, analyze, and organize large datasets efficiently, communicated key insights to technical and non-technical stakeholders, and collaborated with a Data Scientists
 - Applied statistical analysis and advanced statistical methods to extract insights from data in data visualization to communicate my findings effectively using R and Python.
 - Provided comprehensive data report and design through PostgreSQL using PowerBi, Amazon Quicksight, and Amazon Athena.
- QUADX - Data Analyst (Contract)Remote · June - September 2023
- Developed and implemented statistical models using R and Python to analyze & optimize business operations
 - Utilized predictive modeling techniques to forecast key business metrics
 - Designed and maintained data pipelines to ensure reliability of data-driven solutions

TECHNICAL SKILLS

Programming: C, C++, JavaScript, Typescript, Python, Java, PHP

Web Development: HTML, CSS, TailwindCSS, C#, DOTnet, ReactJS, NextJS, Node, Express, Laravel, Angular

Design and Prototyping: Figma, Lucidchart

Databases: SQL, MySQL, PostgreSQL, Appwrite, MongoDB

Collaboration: Microsoft Teams, Jira, Quicksight

Soft Skills: Problem-solving, Attention to Details, Communication, Leadership, Teamwork and Collaboration, Time Management, Project Management, Continuous Learning

CERTIFICATIONS

- Understanding TypescriptJan 2025
- Completed an in-depth TypeScript course covering core concepts (types, interfaces, generics), advanced features (decorators, mapped types), and integration with React, Node.js, and Webpack.
- JavaScript Algorithms and Data Structures by freeCodeCampJuly - Aug 2024
- Earned certification by mastering JavaScript fundamentals, ES6 features, and solving algorithmic challenges. Developed skills in OOP, functional programming, data structures, and debugging through hands-on projects. View certificate.
- CyberOps AssociateAug - Sept 2023
- A certification that gave me practical experience with a CCNA course focusing on advanced switching technologies, LAN/WLAN security, and troubleshooting VLANs, redundancy, and Cisco Packet Tracer.
- Back End Development and APIs by freeCodeCampAug - Sept 2024
- Developed server-side applications using Node.js, Express, and MongoDB. Built RESTful APIs, managed dependencies with npm, and implemented database operations with Mongoose.
- JavaScript Algorithms and Data Structures by freeCodeCampJuly - Aug 2024
- Earned certification by mastering JavaScript fundamentals, ES6 features, and solving algorithmic challenges. Developed skills in OOP, functional programming, data structures, and debugging through hands-on projects.
- Introduction to SQL & Intermediate SQL by DataCampOct 2024
- Certifications I completed to strengthen my foundational knowledge of SQL.

THESIS

Enhancing Cebuano Constituency Parsing: A Stemmer and Syntax Tree Optimization Approach

January - November 2024

- Designed and implemented a rule-based constituency parser optimized for the Cebuano language based on the CKY parsing strategy and Chomsky Normal Form (CNF).
- Leveraged binary constituent labeling, grammar induction, and a bracketing normalization scheme to support the accurate derivation of hierarchical phrase structure trees in a low-resource language context.
- The study highlights the efficacy of hybrid symbolic-NLP pipelines in enhancing syntactic parsing quality for under-resourced Philippine languages.
- Accepted for 2025 IEEE International Conference on Computer Applications (ICCA).
<https://ieeexplore.ieee.org/document/11011162>

PROJECTS

Cinemascape – Full-Stack Movie Management Platform

Developed a responsive movie management platform allowing users to perform full CRUD operations on movie entries, including media uploads and updates.

- **Backend:** Built with Django and Django REST Framework, integrated with Cloudinary for media storage and PostgreSQL for structured data management.
- **Frontend:** Developed with Angular, styled using modern UI practices to ensure seamless user experience and responsiveness.
- **Features:** User-friendly movie listing, editing, and deletion with real-time feedback and media previews.
- [Repository](#)

PMS – Patient Management System (PMS)

Developed a healthcare appointment management platform enabling patients to register, book appointments, and receive SMS confirmations.

- **Frontend:** Developed with Next.js 14 and TypeScript, styled using Tailwind CSS and ShadCN for a fully responsive and accessible UI.
- **Backend:** Integrated Appwrite for database, auth, file storage, and Twilio for automated SMS notifications.
- **Features:** Patient and admin dashboards, appointment scheduling/cancellation, file uploads, and performance monitoring via Sentry.
- [Repository](#)

Tasky - To Do List Mobile Application

Co-developed a cross-platform task management app with real-time CRUD operations, enabling users to manage tasks

- **Frontend:** Built with React Native and TypeScript, styled using NativeWind (Tailwind CSS) for a responsive and clean mobile UI.
- **Backend:** Integrated Supabase for authentication, real-time database syncing, persistent task storage, and deployed as a signed APK using Expo.
- **Features:** Tab-based navigation for tasks, modals for creation/editing, and icon-based actions for intuitive task handling.
- [Repository](#)

MAPPO – Multi-Agent Proximal Policy Optimization Framework

Implemented and extended a reinforcement learning framework for cooperative multi-agent environments for Discrete Structures III Subject

- **Core Functions:** Developed in Python with PyTorch, TensorFlow, and Seaborn for visualization. Built under a modular onpolicy architecture supporting both on-policy and off-policy variants.
- **Environments Supported:** StarCraft II (SMAC & SMACv2), Hanabi, Multi-agent Particle Environments (MPE), and Google Research Football (GRF).
- **Features:** Shared policy architecture, custom environment wrappers, configurable hyperparameters, and training/evaluation scripts for reproducibility.
- **Notable Contribution:** Added support for SMAC V2 and optimized training workflows for more stable cooperative policy learning.
- [Repository](#)

TCM – Toxic Comment Classification Model

Rebuilt a machine learning model with the help of EMNLP 2021 paper to classify toxic online comments using NLP techniques and labeled dataset analysis.

- **Modeling:** Implemented using Python with Scikit-learn, NLTK, and XGBoost for preprocessing, feature extraction (TF-IDF), and classification.
- **Workflow:** Included data cleaning, text normalization, tokenization, and hyperparameter tuning for improved accuracy.
- **Evaluation:** Assessed using metrics such as accuracy, precision, recall, and confusion matrix.
- [Repository](#)

LEADERSHIP & ACTIVITIES

Computer Information Sciences Council	Sept 2024 - Jun 2025
Ambassador	
- Responsible for representing block concerns in the university’s and department’s endeavors, promoting department projects, and communicating executive announcements.	
Google Developer Student Clubs USC	Sept 2021 - Aug 2023
Noogler Member	
- Participated in Google Developer Student Clubs at USC by engaging in technical workshops and community activities	
Red Cross Youth Council	June 2019 - Apr 2021
Secretary & Records	
- Managed financial records and budget tracking for upcoming events and planning initiatives. Also served as a volunteer in major events held in Cebu	

REFERENCES

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