# Joshua Patrick G. Chiu

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## PROFILE <a href="https://sweep-portfolio.vercel.app">https://sweep-portfolio.vercel.app</a> <a href="https://sweep-portfolio.vercel.app">t</a> <a href="https://sweep-portfolio.vercel.app">t</a> <a href="https://sweep-portfolio.vercel.app">t</a> <a href="https://sweep-portfolio.vercel.app">https://sweep-portfolio.vercel.app</a> <a href="https://sweep-portfolio.vercel.app">t</a> <a

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 CARLOS Website 2

Cebu City, Cebu

**Bachelor of Science, Major in Computer Science** (GWA 1.59)

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 Typescript**

Jan 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 freeCodeCamp

July - 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 Associate

Aug - 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.

# Introduction to SQL & Intermediate SQL by DataCamp

Oct 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). <a href="https://ieeexplore.ieee.org/document/11011162">https://ieeexplore.ieee.org/document/11011162</a>

# **PROJECTS**

# **Multi-Agent PPO**

• Co-developed a Multi-Agent PPO, an implementation of algorithms for Deep Reinforcement Learning with continuous action spaces using Python, Seaborn, and Tensorflow along with context-aware DAG topologies. <u>Github</u>.

### **Patient Management System**

 Developed a A Healthcare Management System Designed for Medical Record Management that enables patients to book doctor checkups/appointments and admin CRUD operations using Twilio, Next.js, Vite, Tailwind, and Appwrite. <u>Github</u>.

# **Taskify**

• Developed "Taskify," A Task Management App for Employees with searching index function, hierarchy ranking, and admin CRUD Operations using Vite, React, SQL, and Javascript. Github.

## **Toxic Classification Model**

• Co-developed a model to classify and mitigate toxic responses generated by dialogue models trained on human conversations.using BERT language model with GloVe embedding. <u>Github</u>.

#### **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