**Aaron Wang**

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**EDUCATION**

**University of Notre Dame** | Notre Dame, IN (Expected) May 2027

*B.S.* *Computer Science| Applied Computational Mathematics and Statistics GPA: 3.95*

**CS Course work**: Data Structures, Logic Design, Systems Programming, Discrete Math, Theory of Computing\*, Computer Architecture\*, and Programming Paradigms\*

**Math Coursework**: Linear Algebra, Calculus I-III, Probability, Statistical Methods\* and Differential Equations\* (\* current)

**EXPERIENCE**

**University of Notre Dame** | *Research Intern* | [**Web3DB**](https://www.web3db.org/) February 2025 – Current

* Analyzed and researched relational databases, specifically **PostgreSQL** and **MySQL**, to design and implement efficient indexing within the Web3DB Project
* Utilized **Docker** and **Apache** **Spark** for scalable testing across multiple worker nodes

**University of Notre Dame** | *Teacher’s Assistant* | Discrete Math & Data Structures September 2024 – Current

* Hosted weekly office hours to clarify concepts and supplement lectures, resulting in improved student understanding
* Created and graded problem sets with detailed feedback for 80+ students weekly to enhance their problem-solving skills and course performance

**iGoStem Academy** | *Teacher* (Summer) June 2022 – August 2023

* Taught a class of ~15 kids STEM-related activities, including solving a Rubik's cube, animation, and engineering, leading to increased engagement and understanding of STEM concepts
* Developed lesson plans for children who could not yet read or write, resulting in improved comprehension and participation in class activities

**PERSONAL PROJECTS**

**Bible Journal App**|[**GitHub**](https://github.com/aaronrwang/Bible_Journal)**Flutter, Supabase, PostgreSQL, RESTful APIs**

* Developing a cross-platform mobile app with **Flutter** to enhance Bible study, reflection, and prayer journaling
* Implementing seamless data retrieval and storage using **Supabase**, **PostgreSQL** and **RESTful** **APIs**

**TangoBot** |[**GitHub**](https://github.com/Elliotkim2/TangoBot)**Next.js, TypeScript, MongoDB, Python**

* Worked with a partner to deploy a dynamic website using **Next.js**, showcasing solutions for every Tango game
* Designed and implemented an automated web scraper to extract content from the Daily Tango game, solve it, and upload the data to a **MongoDB** database

**Go-Stop** |[**GitHub**](https://github.com/aaronrwang/HwaTu.git)**Node.js, Express.js, Socket.io, React**

* Developed a Full Stack WebApp to play the traditional Korean Go-Stop card game with friends and strangers
* Programmed a game in **JavaScript**, leveraging object-oriented programming principles and creating an engaging user interface with **React**

**LEADERSHIP AND ACTIVITIES**

**CS For Good** | Notre Dame, IN | [**GitHub**](https://github.com/Riverbend-CS4Good/turtle) September 2024 - Current

* Designed and implemented a Turtle web app using a lexer, parser, and interpreter to execute movement, control flow, and drawing commands
* Created an interactive learning tool to teach elementary students coding fundamentals, making programming concepts more accessible and engaging

**Delbarton Peer Tutor** | Morristown, NJ September 2021 – May 2023

*Peer Leader / Tutor*

* Co-ordinated appointments for school of 600+ students and 30+ tutors
* Tutored 20+ peers over 2 years in Algebra, Geometry, and Calculus

**HONORS**

Notre Dame Dean’s ListFall 2023, 2024 and Spring 2024

USACO Silver Division2022

Bausch & Lomb Honorary Science Award2022

**TECHNICAL AND LANGUAGE SKILLS**

**Technical:** Python, JS/TS, Java, C, C++, React, Node.js, Next.js, SQL, MongoDB, Flutter, Docker

**Languages:** English, Mandarin (conversational)