GABRIELA M. BALISACAN

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GitHub: ichiyan ◆ Portfolio: https://ichiyan.github.io/dev-portfolio/

With a solid foundation in full-stack web development and data science, I am passionate about tackling complex real-world challenges through innovative and impactful tech and data-driven solutions. My strong analytical, technical, problem-solving, and collaborative skills, coupled with my adaptability, keen attention to detail, and commitment to quality, enable me to deliver exceptional results, even in fast-paced environments and with minimal supervision. Dedicated to continuous learning and growth, I strive to further refine my skills while contributing to meaningful projects.

⚙ TECHNICAL PROFICIENCIES

Data Science and Analytics	Python, NumPy, Pandas, Seaborn, Scikit-learn, PyTorch, HuggingFace, BeautifulSoup, Selenium, Google Colab, Paperspace
Web Development	HTML, CSS, Sass, JavaScript, TypeScript, SQL, ReactJS, Laravel, Django, Java, Java Spring, Celery, Redis, MySQL, Dbeaver, DataGrip
Mobile Development	Dart, Flutter, Android Studio
Other Languages	C, R
Other Technologies	Git, GitHub, Visual Studio Code, IntelliJ IDEA, Docker

💼 WORK EXPERIENCE

Software Engineer Intern
Alliance Software Inc.

May 2023 - September 2023
Cebu City, Philippines

- Worked on the front and back-end development of a web-based supply chain management system and e-commerce system using ReactJS, Java Spring, and MySQL
- Wrote SQL scripts for data fetching, merging, aggregating, and more to create reports
- Streamlined development processes by creating reusable components that could be shared across different parts of the application
- Optimized code performance by identifying bottlenecks and refactoring for improved efficiency

Software Developer
Trent (subcontract)

October 2021 - March 2022
Remote

- Implemented the front-end screens of a delivery service mobile application using Flutter and Android Studio
- Used the Google Maps API to track delivery riders' location

🎓 EDUCATION

Bachelor of Science in Computer Science
University of San Carlos

August 2019 - June 2024
Cebu City, Philippines

- *magna cum laude*
- *cum laude caroli sancti* (with high praise of San Carlos) for exhibiting academic competence and skills (Scientia), noble character (Virtus), and dedication to social transformation (Devotio)

Elementary to Senior High School (STEM)
De La Salle Andres Soriano Memorial College

June 2007 - March 2019
Toledo City, Philippines

- Valedictorian with High Honors (2013, 2019)

🔍 RESEARCH PUBLICATIONS

Neuro-Vis: Guided Complex Image Reconstruction from Brain Signals   June 2024
Using Multiple Semantic and Perceptual Controls

- Led the development of a novel deep learning model to reconstruct seen natural images from evoked human brain activity using Python, PyTorch, NumPy, Scikit-learn, Diffusers, HuggingFace, etc.
- Given brain activity data, the model predicts fine-grained image features that capture low-level details with high semantic fidelity, depth maps and color palettes to incorporate structural and color information in the human visual cortex, and realistic descriptive texts of the seen images. These predictions drive a modified diffusion-based generative model to reconstruct the seen images.
- Outperformed the state-of-the-art methods in terms of consistency in low-level features while also rivaling them in terms of semantics and also produced state-of-the-art image captioning results
- Presented the results during the 2024 International Conference on Computing, Machine Learning, and Data Science and the presentation was awarded as the best in its track

🏆 KEY ACHIEVEMENTS

Best Presenter, International Conference on Computing, Machine Learning, and Data Science   April 2024
International Computing and Engineering Association (ICEA)   *Bugis, Singapore*

- Presented our deep learning research paper on brain decoding entitled "Neuro-Vis: Guided Complex Image Reconstruction from Brain Signals Using Multiple Semantic and Perceptual Controls"

8th Place, Nationwide Diliman Solutions Challenge   March 2021
Google Developers Student Club UP Diliman Chapter   *Remote*

- Ranked 8th out of 250 participants and top 30 teams with our proposal and prototype of a mobile application that instills financial literacy through a simulation visual novel-like game, stock market simulation, information corner, and forum

Best Capstone Project, STEM Fair   February 2019
De La Salle Andres Soriano Memorial College   *Toledo City, Philippines*

- Recognized as the best among 20 teams with our rover-type mine search and rescue robot prototype equipped with a first-person view camera, temperature and gas sensors, and mobile application

Best Research Project and Best Poster Presentation, Division Research Conference   February 2019
Department of Education, Toledo City Division   *Toledo City, Philippines*

- Emerged as the best out of more than 20 participating schools for our quantitative research project on the relationship among multiple intelligences, academic achievement, and 21st-century skills of grade 10 students
- Performed pilot testing, administered four sets of research instruments, and applied statistical tools or techniques such as proportion, weighted mean, and Chi-square

Research Presenter, De La Salle Philippines Academic and Cultural Fair   January 2019
De La Salle Philippines   *Ozamiz City, Philippines*

- Invited to present our quantitative research project on the relationship among multiple intelligences, academic achievement, and 21st-century skills of grade 10 students during the DLSP fair participated by all 16 La Salle schools