

Davis Nicholo Magpantay

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Education

Kyoto University , Department of Chemical Science and Technology	Expected Mar 2029
• Cumulative GPA: 4.24/4.0 (*The university's grading system allows for A+ grades, which are calculated as 4.3)	
• Recipient of a full scholarship under the Mitsubishi Gas Chemicals Memorial Foundation	
• Notable coursework: Seminar on Smart Materials, Basic Physical Chemistry (Quantum Theory), Fundamental Chemical Experiments, Philosophy of Modern Science	
Philippine Science High School - Main Campus , Highschool Diploma	Aug 2018 - Jul 2024
• GWA: 1.02/1.0 (Rank 1/232)	
• Key awards: Excellence in Chemistry, Excellence in Computer Science	
• Notable coursework: Frontiers of Chemistry, Data Structures and Algorithms, S&T Research	

Projects & Experience

Chemaya: Gesture-Controlled Virtual Chemistry Lab	» GitHub Repo
• Led the development of an accessible virtual chemistry lab in React.js, integrating Google MediaPipe to create a hand-gesture-based user interface.	
• Trained and deployed a custom gesture recognition model with 80%+ accuracy using a combination of in-house and external datasets (HaGRID), validating the application's performance against traditional labs through user testing.	

Shock Electrodialysis Apparatus

- Secured \$1,500 USD in funding (Department of Science and Technology, Young Innovators Program) by being selected as a project from a pool of 70+ teams.
- Designed, fabricated, and tested a modular desalination prototype, collaborating with University of the Philippines - Diliman faculty members to guide implementation.

Leadership & Involvement

Mentor , Bayanihon JUMPStart	Oct 2024 - Present
• One of the founding mentors of a network of Filipino scholars in Japan to mentor high school students through the complex university and scholarship application process.	
• Aided a cohort of 10+ mentees in securing admissions to 5 prestigious Japanese universities, including Kyoto University, Hokkaido University, and Nagoya University.	
• Coordinated with funding companies for information sessions and potential scholarship opportunities for highschool students	

Notable Awards

Silver Medalist (Top 10) , Philippine National Chemistry Olympiad	2023, 2024
Bronze Medalist (Top 10) , National Olympiad in Informatics - Philippines	2024
Distinction (Top 11) , Singapore Intl. Math. and Computational Challenge	2024
The National Scientist Dr. Angel C. Alcala Award for Excellence in Science	2024
Outstanding Delegate , Hwa Chong Institution Asia Pacific Youth Leaders Summit	2022

Skills & Languages

Technical skills: Python (Numpy, Pandas, Scikit-learn), Git, Astro, Tailwind CSS, React.js

Languages: English (fluent), Filipino (native), Japanese (limited working proficiency)