

ERICKSON FAJICULAY



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SUMMARY

- Experienced Research Associate with demonstrated history of working in both **local** and **international** academic research institutions. Approximately **13 years** of work experience.
- Skilled in computer programming, machine learning, data science, and computational analysis applied to scientific problems in **chemistry**, biology, and related fields.
- Strong research professional with a Master of Science in **Chemistry**, with units in Master of Information Systems, and currently pursuing Ph.D. in Bioinformatics with focus on systems biology.

EDUCATION

Degree	School	Scholarship	Laboratory/Thesis Lab
Ph.D. in Bioinformatics 2018 – present 32 credit units GPA = 4.13 (between A to A ⁺)	Institute of Bioinformatics and Structure Biology, National Tsinghua University, 30044, Taiwan	Taiwan International Graduate Program (TIGP), Academia Sinica, Taipei, 115, Taiwan	Theoretical and Physical Chemistry Lab Institute of Chemistry, Academia Sinica, Taipei, 11529, Taiwan
Master of Information Systems 2017-present (LOA) 18 credit units GWA = 1.458 (~92)	University of The Philippines Open University	Not applicable	Not applicable
Master of Science in Chemistry 2009-2014 (Graduated) 43 credit units GWA = 1.742 (~89)	University of the Philippines, Diliman Quezon City	Accelerated Science and Technology Human Resource Development Program (DOST-ASTHRDP, Lateral Entry)	Computational Chemistry Lab Institute of Chemistry, University of the Philippines Diliman
Bachelor of Science in Chemistry 2004-2008 (Graduated) 180 credit units (ALL)	Polytechnic University of The Philippines, Sta. Mesa Manila	Serves as a Laboratory Assistant under Dr. Lorna T. Enerva & Dr. Ging Nery	Natural products chemistry No particular lab.

GWA = 1.538 (~92) 85 chemistry units GWA = 1.253 (~95)			Common Laboratory area with in PUP.
Laboratory High School 2000-2004 (Graduated) Best in Industrial Arts	Batangas State University ARASOF Nasugbu Campus	Apolinario R. Apacible Scholar (Mayor's Scholarship)	Not applicable

WORK EXPERIENCE

Job title	Company	Duties and Responsibilities
Research Associate Feb 2016- Jul 2018 (2.5 years)	Earth Observatory of Singapore, Nanyang Technological University	Preparing scripts, data population, and user interface development for the World Organization of Volcano Observatories database (WOVOdat) using PHP, MySQL, JS/JQuery, HTML, CSS etc. Explores the application of machine learning to improved volcanic eruption forecasting.
Senior Science Research Specialist Feb to Dec 2015 (11 months)	Philippine Textile Research Institute/ Department of Science and Technology	Research and Development Introduction of Smart properties to textile substrate by chemical modification and surface finishing.
Science Research Specialist I Mar to Nov 2014 (9 months)	University of the Philippines Diliman/ Department of Science and Technology	Design, fabrication, and evaluation of monitoring and sampling devices for particulate matter. Perform administrative tasks like procurement, etc.
Chemist II Sep 2013 to Jan 2014 (5 months)	CRL Environmental Corporation	Remotely process chemical data from Las Vegas laboratory and upload data to LIMS. (ICPMS, ICP, IC, GRO, and TPH data packaging). Check and encode sample specification from COC uploaded from Las Vegas.
Science Research Specialist I Sep 2011- Sep 2013 (2 years)	Philippine Institute of Volcanology and Seismology	Chemical analysis of water samples from volcanic areas. Monitor CO ₂ and SO ₂ concentration in volcanic plumes and in the vicinity of the volcano. Install, calibrate, and trouble shoot instrument for real time monitoring of SO ₂ and CO ₂ . Work with visiting scientist from foreign institution on collaborative projects.
Part time College Instructor I 2008 – 2012 (~ 4 years)	Polytechnic University of the Philippines	Teach core chemistry subjects to BS Chemistry and non BS Chemistry students. Prepare lessons, exams, and quizzes.
On job training (one Semester break) Apr-May 2007 (2 months)	Bureau of Food and Drugs	Analysis of the nutritional claims, regulated ingredients, and toxins in food products using HPLC, AAS, IR, and UV-vis, etc.
Laboratory Assistant (student assistant) 2005-2007 (~3 years)	Polytechnic University of the Philippines	Prepare chemical reagents and standards for experiments. Handle borrowing and reservation of instrument for experiments

PUBLICATIONS

Newhall, C*, Costa, F., Ratdomopurbo, A., Venezky, D., Widiwijayanti, C., Thin Zar Win, N., **Fajiculay, E.** 2017. WOVOdat – An online, growing library of worldwide volcanic unrest. Journal of Volcanology and Geothermal research 345 184-199

Costa, F*, Widiwijayanti, C., Nang, T.Z.W., **Fajiculay, E.**, Espinosa-Ortega, T. and Newhall, C. (2019), "WOVOdat – the global volcano unrest database aimed at improving eruption forecasts", Disaster Prevention and Management, Vol. 28 No. 6, pp. 738-751.

PAPER FOR SUBMISSION

Fajiculay, E*, Hsu, C.P., BioSANS: A Software Package for Symbolic and Numeric Biological Simulation.

PAPER SUBMITTED IN NATURE

Wu, H*, Wu, J. F., **Fajiculay, E.**, Hsu, C. P., Wu, S. H. Noise reduction by upstream open reading frames.

CONFERENCE ORAL/POSTER PRESENTATIONS

Fajiculay, E., Hsu, C.P., BioSANS: A Software Package for Symbolic and Numeric Biological Simulation. T2COMSA, 2020, Taiwan.

Fajiculay, E., Santoso, A. B., Sulistiyani, Win, N-T-Z., Widiwijayanti, C., Costa, F. Anticipating Volcanic Eruptions using DNA-like Precursors through machine learning. Cities on Volcanoes 10, 2018, Naples Italy.

Fajiculay, E., Win, N-T-Z., Widiwijayanti, C., Costa, F., Newhall, C., Ratdomopurbo, A., 2017, Improving WOVOdat Online Tools For Eruption Forecasts, IAVCEI General Assembly 2017, Portland, USA.

Fajiculay, E., Win, N-T-Z., Widiwijayanti, C., Costa, F., Newhall, C., Ratdomopurbo, A., 2017, WOVOdat-Learn: Online Machine Learning Plugin for WOVOdat. AOGS Meeting 2017, Singapore.

Gunawan, H*, Kasbani, Kumalasari, R., Widiwijayanti, C., Bornas, M. V., Pallister, J., Iguchi, M., Srigutomo, W., Meilano, I., Triastuty, H., Kuswandarto, H., **Fajiculay, E.**, Win, N-T-Z., Clarito, C., Asrori, M., N., Suparjan, Volcano Monitoring System, Data Management, and Data Processing Automation for Crisis Response at Sinabung Volcano, Indonesia, poster, IAVCEI General Assembly, Portland, USA

Widiwijayanti, C*, Costa, F., Win, N-T-Z., **Fajiculay, E.**, Newhall, C., Ratdomopurbo, A., WOVO Observatories, WOVOdat as a Localhost Solution For Archiving, Retrieving, and Visualizing Volcano Monitoring Data, oral, IAVCEI General Assembly, Portland, USA.

Widiwijayanti, C*, Costa, F., Win, N-T-Z., **Fajiculay, E.**, Newhall, C., Ratdomopurbo, A., WOVO Observatories, WOVOdat online tools: Improving and promoting their use for eruption forecasts. AOGS Meeting, oral, Singapore.

Widiwijayanti, C*, Costa, F., Nang, T-Z-W., **Fajiculay, E.**, Newhall, C., Ratdomopurbo, A., Tan, K., and WOVO, WOVOdat as Localhost Volcano Monitoring Database for Crisis Response. COV9, oral, Puerto Varas, Chile.

Arpa, M., Hernandez Perez, P. A., Reniva, P., Bariso, E., Padilla, G., Melian Rodriguez, G., Barrancos, J., Calvo, D., Nolasco, D., Padron, E., Garduque, R., Villacorte, E., **Fajiculay, E.**, Perez, N., Solidum, R. Measuring volcanic gases at Taal Volcano Main Crater for monitoring volcanic activity and possible gas hazard. American Geophysical Union, Fall Meeting 2012, abstract id. V53B-2832

SHORT COURSE / WINTER / SUMMER SCHOOL

2020, 4 months, NTU, Taiwan Mathematics School: Dynamics in Network Systems, R440, Astronomy and Mathematics Building, NTU Taiwan (March 03-June 30)

2019, 4 days, NTU(TW)-Tokyo Institute of Technology, Short Courses for Scientific Computing, Second-order Optimization in Large Scale Deep Learning, NTU Taiwan (July 01-04)

2018, 5 days, NTU(SG)-WARWICK WINTER SCHOOL, Introduction to Complexity Science, Singapore (March 22-23, 26-28)

2014, 4 days, Institute of Environmental Science and Meteorology UP Diliman Quezon City & World Calibration Center for Aerosol Physics: International School on Atmospheric Aerosol Physics, Measurement and Sampling ((Mar 31 – Apr 3, 2014)

SELECTED CONFERENCE /WORKSHOP ATTENDANCE

2019, 18th Asian Chemical Congress and 20th General Assembly of the Federation of Asian Chemical Societies. Taipei, Taiwan, (5 days, Dec 8-12).

2019, International Workshop on Quantum Computing, Information Processing, and Machine Learning, Taipei, Taiwan (4 days, Dec 2 – 4)

CHEMIST CERTIFICATION

2008 **Board Exam for Chemist** - PASSER

CONFERENCE HOSTED BY OUR LAB WHERE I SERVE AS A STAFF

2020, Taiwan Theoretical and Computational Molecular Sciences Association (T2CoMSA)

2019, Taiwan Theoretical and Computational Molecular Sciences Association (T2CoMSA)

2019, The Eight Cross-Strait Conference on Theoretical and Computational Chemistry (CTCC-8), Taiwan

CODILITY CERTIFICATIONS

Golden Award in May the 4th Challenge

Silver Award in Great Code Challenge

Golden Award in Doge Challenge

Silver Award in The OLX Group Challenge

Golden Award in Palladium 2020 Challenge

Golden Award in Ruthenium 2019 Challenge

Golden Award in Technetium 2019 Challenge

Golden Award in Molybdenum 2019 Challenge

TRAINING

Java Script and JQuery for Web Interactivity, PHILIPPINE CENTER OF CREATIVE IMAGING
2247 Don Chino Recess Avenue, Makati City (June 21-23, 2013)

PHP/MySQL Developers Training DOST-ASTI, ASTI BUILDING UP DILIMAN QC (June 25-29, 2012)

Online Tutoring Training, ASIA PREMIERE, Makati City, July 15, Aug 21, 2012

SEMINARS, WORKSHOP & TALKS

RESOURCE SPEAKER Rapid Earthquake Damage Assessment System PDRPMC EASTERN SAMAR	(Nov 18-23, 2012) Hotel Alejandro, Paterno Street Tacloban Leyte
FACILITATOR Rapid Earthquake Damage Assessment System PDRPMC ZAMBOANGGA SIBUGAI	(Sep 16-22, 2012) Zamboangga Sibugay
WATER: A CRITICAL REAGENT TOOL Merck Millipore	Sept 14, 2012 Marriot Hotel Pasay City
NON-CLASSICALITY AND ENTANGLEMENT OF LIGHT FIELD Dr. Young Chul Kim, Ph. D. in Physics from Sunmoon University Korea	(January 27, 2005) Amado V. Hernandez Hall NALRC, Polytechnic University of the Philippines
FORENSIC CHEMISTRY; THE SCIENCE OF INVESTIGATION College of Science, Department of Natural Sciences	February 18, 2005 CS AVR 5th Floor Mabini Campus, Polytechnic University of the Philippines
SUSTAINABLE DEVELOPMENT - WALKING THE TALK Sci Tech R&D Center, Office of the Vice President for R&D, DNS,CS	July 29, 2005 Recreational Hall NALRC, Polytechnic University of the Philippines
TRAUMATOLOGY Understanding The Nature of Trauma, its Symptoms and Impact College of Arts, Department of Psychology	August 10, 21005) Claro M. Recto Hall, Mabini Campus, Polytechnic University of the Philippines
FOOD AND PUBLIC SAFETY College of Science, Department of Natural Sciences, PUP Chemical Society	February 15, 2007, CS AVR 5th floor Mabini Campus, Polytechnic University of the Philippines
Scientist as Super Sleuths A Symposium on Forensic Sciences Kapisanan ng mga Kimika sa Pilipinas&Organic Chemistry Teachers Association	February 21, 2007 Walter Hogan Conference Center, Ateneo de Manila University

PARTICIPATION IN OUT-REACHED PROGRAM AND ACADEMIC ACTIVITIES Organizing Committee Member, University General Science Quiz Bee 2008, September 7, 2008 PUP College of Science Tutorial program, Antonio Maceda Integrated School, (Volunteer Tutor) New Era University Summer kinder Garten Program, Volunteer Teacher For a period of 6 weeks	AWARDS RECEIVED Academic Excellence Award, 2nd Year, School Year 2005-2006 (March 23, 2006, CS AVR 5th Floor PUP Mabini Campus) Academic Excellence award, 3rd Year School year 2006-2007 (March 30, 2007, Claro M. Recto Hall 6th Floor PUP Mabini Campus)
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REFERENCES	Genesis Albarico College Instructor Visayas State University Ph.D. Student, Czech Republic Genesis.albarico@vsu.edu.ph 09618432805	Dr. Christina Widiwijayanti Senior Research Fellow Earth Observatory of Singapore Nanyang Technological University cwidiwijayanti@ntu.edu.sg +656592 1775
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