Allison Arabelo

arabelo.aa@gmail.com www.allisonarabelo.com linkedin.com/in/allisonarabelo

Education

University of the Philippines, Diliman · Bachelor of Science, Materials Engineering — Dec. 2018

- Graduated *cum laude*, Honor Society of Phi Kappa Phi

Coursework: Solid–state engineering · Quantum mechanics · Semiconductors · Thin films · Characterization · Electrochemistry · Kinetics & thermodynamics · Forensic engineering · Material degradation · Engineering statistics

Deeplearning.ai · Deep Learning Specialization — Jun. 2019

University of Manchester · Introduction to Molecular Spectroscopy Certification — Apr. 2019

Georgia Institute of Technology · High-Throughput Materials Development Certification — Apr. 2019

Georgia Institute of Technology · Materials Data Sciences & Informatics Certification — Mar. 2019

Stanford University · Machine Learning Certification — Mar. 2019

Experience

Enishi.ai — Fukuoka, Japan
Machine Learning Intern — May 2019 – Present

- Recommender systems for applications using online multi-armed bandit reinforcement learning

Hokkaido University — Sapporo, Japan
Research Intern, Biotechnology for Resource Engineering Laboratory — Jun. – Jul. 2018

- Achieved ∼**100%** Pb^{2+} removal from waste minewater largely using the extracellular polymeric substance of metal tolerant bacteria. Reduced coastal erosion using microbe-induced $CaCO_3$ precipitation to harden sand

University of the Philippines, Diliman — Quezon City, Philippines
Student Assistant, College of Engineering — Apr. – May 2018

- Created an assessment methodology of primary school students, which analyzed the influence of an outreach event that promoted science and engineering on the students' interest in STEM

Rubber Materials Research & Development Consulting Facility — Quezon City, Philippines
Laboratory Apprentice — Feb. – May 2018

- Characterized and analyzed rubber materials, modified locally-sourced latex, and extracted and purified kaolinite clay for tires as part of the Department of Science Technology of the Philippines Rubber Project 3

Research Projects

- Empirical and simulated degradation of cellulose–based AEM for fuel cells — *Ongoing*
- Synthesis of radation grafted cellulose–based AEMs for fuel cells — *Article in preparation*
- Bioremediation of the lead contaminated Kabwe Mine Site — *Article in preparation*
- Synthesis and metal ion adsorption behavior of sulfur–limonene polysulfide
- Electrophoretic Deposition of Fluoridated Hydroxyapatite on 316L Steel

Skills

- **Characterizations:** SEM · RPA · ICP-AES · UV-Vis · FTIR · XRF · FT-NMR
- **Programming Languages:** Python · Java · MATLAB · Octave · JavaScript · SQL
- **Technologies:** Autodesk Fusion 360 · Tensorflow · Keras · LaTeX · Adobe Photoshop · MS Office · PostgreSQL

Activities

University of the Philippines Materials Science Society · President — Apr. 2018 – Apr. 2019

University of the Philippines Pi Kappa Gamma Sorority · Founding President — Feb. 2018 – Jan. 2019

Awards & Honors

UPD 2nd Failure Analysis Colloquium · Selected Presenter — Dec. 2017

SMEP Metallurgical Conference · Oral presenter — Oct. 2017