Address: 50 Nanyang Crescent, Singapore 637598
+65 98130401(M)
yam.alcaraz@gmail.com / alca0001@e.ntu.edu.sg

JOSELITO "YAM" T. ALCARAZ II

WORK EXPERIENCE

Energy Development Corporation, Philippines

Geothermal Reservoir Engineer and Modeler (Apr 2013 to Nov 2016)

- Applied knowledge in programming and scripting – utilized an AWS cluster in developing automated and parallelized well simulations that resulted to better productivity of the whole modeling group
- Working knowledge of inverse modeling and parameter estimation techniques – created a novel method of automated well calibration and presented to the World Geothermal Congress 2015 in Melbourne, Australia
- Analyzed field data using geothermal reservoir engineering methods and modeling tools – providing significant inputs to well interventions and utilization, to resource management, and to business decisions
- Supervised a team of 4-6 people during completion test activities of wells in local geothermal production fields
- Developed a full-scale numerical reservoir model for a local production field – eventually utilizing it to assess the power potential of expansion areas and to formulate long-term resource management and exploitation strategies
- Successfully assessed the commercial viability and resource potential of international expansion areas for geothermal utilization using statistical methods

Mechanical Engineering Department, University of the Philippines – Diliman

Undergraduate Instructor (Jun 2012 to Apr 2013)

- Lectured undergraduate students on Control Systems Engineering and Manufacturing Processes in classroom and laboratory environments

EDUCATIONAL ATTAINMENT

Nanyang Technological University

Master of Science in Mechanical Engineering (Jun 2017 to May 2018)

- GPA: 4.5/5.0 (1st semester)
- ASEAN Graduate Scholarship awardee
- Optimized the finishing of aerospace components using predictive modeling and machine learning methods through research under the Rolls-Royce@NTU Corporate Laboratory

University of the Philippines, Diliman

Master of Science in Mechanical Engineering (Nov 2012 to Jun 2017)

- GWA: 1.06/1.0 (Equivalent GPA: 3.91/4.0)
- Created a full-scale numerical reservoir model using open source software to investigate the effect of CO_2 injection to geothermal energy production

Bachelor of Science in Mechanical Engineering (Jun 2007 to Apr 2012)

- Graduated *Cum Laude*
- Top 3 of BS Mechanical Engineering Class of 2012
- Overall Best Student Award, UP Mechanical Engineering Graduation Dinner and Awards Night 2012
- 1st Place - Undergraduate Project Competition 2012 – Led the exterior design of a hybrid diesel car that won 1st place at the Shell Eco-marathon Asia 2011

PUBLICATIONS AND CONFERENCE PAPERS

- J. Y. T. Alcaraz, A.V. Mankar, K. Ahluwalia, R. Mediratta, K. M. Majumdar, S. H. Yeo, "Surface Roughness Modelling of Vibro-polishing in Trough System." *8th CIRP Conference on High Performance Cutting*, 2018. In review.
- J.T. Alcaraz, "Wellbore Model Inversion: Coupling of a Wellbore Simulator and an Inversion Software." *World Geothermal Congress. Melbourne, Australia*, 2015.

ADDITIONAL INFORMATION

- Power user of Python – experienced in scikit-learn, tensorflow, and other modules for scientific application
- Has excellent communication and interpersonal skills – fluent in English and Filipino
- Enjoys swimming, badminton and ultimate frisbee; likes trying out new sports
- Under the Singapore MOE Service Obligation scheme, i.e. employment pass application will be considered favorably