# RONNAKRIT RATTANASRIAMPAIPONG

NOAA CLIMATE & GLOBAL CHANGE POSTDOCTORAL FELLOW

Curriculum vitae (updated 2025–01–24)

Gould-Simpson Building, Room 513A Department of Geosciences, The University of Arizona 1040 E. 4th St., Tucson, AZ 85721 U.S.A. rrattan@ucar.edu ronnakritr@arizona.edu R<sup>6</sup> 𝔄 氳 📵 🗘

Research Mesozoic–Cenozoic Paleoceanography/Paleoclimatology, Archaeal Lipid Biomarker, Marine Ammonia Oxi-Interests | dizing Archaea, Archaeal Ecology and Evolution, Proxy System Modeling, Paleoclimate Data Assimilation

Appointments | The University of Arizona

Tucson, AZ

2023 – NOAA Climate & Global Change Postdoctoral Fellow

Education | Texas A&M University

College Station, TX

2023 Ph.D. in Oceanography (Paleoceanography/Organic Geochemistry)

CHULALONGKORN UNIVERSITY

Bangkok, Thailand

2016 M.S. in Petroleum Geoscience (International Program)

CHULALONGKORN UNIVERSITY

Bangkok, Thailand

2013 B.S. in Geology

Awards | Fellowships and Scholarships

**NOAA Climate & Global Change Postdoctoral Fellowship**, The Cooperative Programs for the Advancement of Earth System Science (CPAESS) at the University Corporation for Atmospheric Research (UCAR), 2023–2025. Awarded up to 8 candidates worldwide annually.

*Texas A&M Dissertation Fellowship*, Texas A&M University (TAMU), 2023–2024. Awarded up to 15 candidates university-wide annually.

Texas Sea Grant's Grants-In-Aid Graduate Research Grant, Texas Sea Grant, 2022-2024

Schlanger Ocean Drilling Fellowship, U.S. Science Support Program (USSSP) associated with the International Ocean Discovery Program (IODP), 2021–2022. Awarded up to 8 candidates nationwide annually for graduate students at US academic institutions who conduct research related to the International Ocean Discovery Program and its predecessor programs.

Oceanography Graduate Scholarship, Department of Oceanography, TAMU, 2018–2024

*Fulbright Thai Graduate Scholarship*, Thailand-U.S. Education Foundation (TUSEF), Fulbright Thailand, 2018–2020. Awarded up to 7 candidates nationwide annually.

Chevron Thailand Graduate Scholarship, Chevron Thailand, 2015-2016

Chevron Undergraduate Scholarship, Chevron Thailand, 2012–2013

Mitsui Oil Exploration Company (MOECO) Undergraduate Scholarship, MOECO, 2011–2013

TRAVEL GRANTS

FAS Research and Academic Exchange, Faculty of Arts and Sciences, Harvard University, 10/2024

Fall Meeting Student Travel Grant, American Geophysical Union (AGU), 12/2022

Oceanography Graduate Council (OGC) mini-grant, TAMU Oceanography, 12/2019, 12/2021, 12/2022

TAMU Research and Presentation Award, Graduate and Professional School (GPS), TAMU, 12/2019

#### Honors and Awards

*Invited student speaker* to give a reception speech at the Annual AGU Student Travel Grant Luncheon, AGU Fall Meeting, Chicago, IL, December  $12^{th}$ , 2022.

Invited student speaker to give a reception speech at the Award Recognition Ceremony, Ministry of Foreign Affairs, Bangkok, June  $6^{th}$ , 2018.

*Champion of The Hitachi Trophy 2013 Senior Project Competition*, "won first place in Physical Science of the annual scientific pitching competition for all senior year students in the Faculty of Science," Chulalongkorn University, April 2013.

# Publications | Manuscript(s) in preparation, under review, and/or in-press

4. Rattanasriampaipong, R., Zhang, Y. G., Alo, O., Liu, X.-L., Zhang, Y., Kim, B., Marcantonio, F., and Bassinot, F. (under review). Methylation index of Overly Branched glycerol dialkyl glycerol tetraethers (MOB): a proxy for deep ocean (de)oxygenation?

#### Papers published in refereed journals

- 3. Judd, E. J., Tierney, J. E., Huber, B. T., Wing, S. L., Lunt, D. J., Ford, H. L., Inglis, G. N., McClymont, E. L., O'Brien, C. L., Rattanasriampaipong, R., Si, W., Staitis, M. L., Thirumalai, K., Anagnostou, E., Cramwinckel, M. J., Dawson, R. R., Evans, D., Gray, W. R., Grossman, E. L., Henehan, M. J., Hupp, B. N., MacLeod, K. G., O'Connor, L. K., Sánchez Montes, M. L., Song, H., and Zhang, Y. G. (2022). The PhanSST global database of Phanerozoic sea surface temperature proxy data. *Scientific Data*, 9(1)
- 2. Rattanasriampaipong, R., Zhang, Y. G., Pearson, A., Hedlund, B. P., and Zhang, S. (2022). Archaeal lipids trace ecology and evolution of marine ammonia-oxidizing archaea. *Proceedings of the National Academy of Sciences*, 119(31):e2123193119
- 1. **Rattanasriampaipong**, R. (2016). Potential sources of mercury in Southern Pattani Basin, the Gulf of Thailand. *Bulletin of Earth Sciences of Thailand*, 8(2 SE Research Articles):133–144

# Presentations | Academic & Scientific Conferences

- 12. Rattanasriampaipong, R., Tierney, J., Elling, F., and Inglis, G. (2024, December). Rethinking  $TEX_{86}$  temperature calibration with TEXAS-PSM. Oral presentation at the 2024 AGU Fall Meeting, Walter E. Washington Convention Center, Washington, D.C., USA.
- 11. **Rattanasriampaipong**, **R**. and Tierney, J. (2024, August). *TEXAS-PSM: Towards a full proxy system modeling of TetraEther indeX of Ammonia oxidizerS*. Poster presentation at the 2024 Gordon Research Conference on Organic Geochemistry, Holderness School, Holderness, New Hampshire, USA.
- 10. **Rattanasriampaipong**, **R**. and Tierney, J. (2024, July). *TEXAS-PSM: Towards a full proxy system modeling of TetraEther indeX of Ammonia oxidizerS*. Poster presentation at the 2024 Gordon Research Seminar on Organic Geochemistry, Holderness School, Holderness, New Hampshire, USA.
- 9. Rattanasriampaipong, R. and Tierney, J. (2024, July). Rethinking proxy calibration framework for  $TEX_{86}$  paleothermometry. Oral presentation at the 16th NOAA Climate and Global Change Postdoctoral Fellowship Summer Institute, Holiday Inn, Steamboat Springs, CO, USA.
- 8. Rattanasriampaipong, R., Zhang, Y. G., Alo, O., Liu, X. L., Zhang, Y., Kim, B., Marcantonio, F., and Bassinot, F. (2023, December). *Bacterial tetraether lipids as a proxy for ocean (de)oxygenation*, Abstract (PP33B-04) presented at the 2023 AGU Fall Meeting, Moscone Center, San Francisco, CA, USA.
- 7. Rattanasriampaipong, R., Zhang, Y. G., Pearson, A., Hedlund, B., and Zhang, S (2022, December). *Archaeal lipids suggest ecological shifts of marine ammonia-oxidizing archaea in greenhouse worlds*, Abstract (PP13C-04) presented at the 2022 AGU Fall Meeting, McCormick Place Convention Center, Chicago, IL, USA.

- 6. **Rattanasriampaipong**, R., Zhang, Y. G., Pearson, A., Hedlund, B., and Zhang, S. (2022, April). *Tracing ecology and evolution of marine ammonia-oxidizing archaea using archaeal lipid biomarkers*. Oral presentation for the departmental seminar at the Department of Oceanography, Texas A&M University, TX, USA.
- 5. Rattanasriampaipong, R., Zhang, Y. G., Pearson, A., and Hedlund, B. (2021, December). Beyond  $TEX_{86}$ : GDGTs Inform Marine Archaeal Community Ecology and Evolution. Oral presentation (hybrid) at the 2021 AGU Fall Meeting, Ernest N. Morial Convention Center, New Orleans, LA, USA.
- 4. Rattanasriampaipong, R., Zhang, Y. G., Pearson, A., Hedlund, B., and Zhang, S. (2021, September). Beyond  $TEX_{86}$ : GDGT Distributions Inform Archaeal Ecology. Lightning (3-minute) oral presentation at the 2021 PhanTASTIC Workshop.
- 3. Rattanasriampaipong, R. (2021, April). Closing the gaps of Cenozoic sea surface temperature history using tetraether archaeal lipid biomarkers. Oral presentation for the departmental seminar at the Department of Oceanography, Texas A&M University, TX, USA.
- 2. Rattanasriampaipong, R. and Zhang, Y. G. (2019, December). *Towards complete global sea surface temperature reconstructions over the Cenozoic Era.* Poster presentation at the 2019 AGU Fall Meeting, Moscone Center, San Francisco, CA, USA.
- 1. Rattanasriampaipong, R. (2013, April). Quantification of Tsunami Magnitude from Sedimentation Modeling of Re-occurring Indian Ocean Tsunamiites at Phra Thong Island, Phang Nga, Thailand. Oral Presentation at the annual Hitachi Senior Project Competition, Faculty of Science, Chulalongkorn University, Thailand.

#### **INDUSTRY**

- 4. Rattanasriampaipong, R., Marksamer, A., and Kantatong, P. (2018, April). *A new approach for pore pressure prediction using neutron-density log separation*. Oral presentation at the 2019 Sub-Surface Technical Forum, Chevron Thailand Headquarter, Bangkok, Thailand.
- 3. Rattanasriampaipong, R., Paiboon, P., and Thatmali, P. (2015, February). *Pattani Basin Regional Pore Pressure Study*. Oral Presentation at the annual meeting of Chevron Thailand Reservoir Management Forum, Swissotel Le Concorde, Bangkok, Thailand.
- 2. Rattanasriampaipong, R., Kananithikorn, N., Keawmoon, N., and Prasongtham, P. (2014, June). *Causes of ballooning and lost circulation in Erawan and Satun fields.* Poster session presented at the bi-annual meeting of Chevron Reservoir Management Forum, The Woodlands Waterway Marriott Hotel, Houston, TX, USA
- 1. **Rattanasriampaipong**, **R.**, Kananithikorn, N., Keawmoon, N., and Prasongtham, P. (2014, April). *Causes of ballooning and lost circulation in Erawan and Satun fields*. Oral Presentation at the annual meeting of Chevron Thailand Reservoir Management Forum, Renaissance Hotel, Bangkok, Thailand.

# Invited Talks & Conducted in English

### Lectures

- 7. Archaeal lipids trace ecology and evolution of marine ammonia-oxidizing archaea, the geobiology session Where Rock Meets Life: Geobiology of Modern and Ancient Aquatic Ecosystems at the 50<sup>th</sup> SACNAS NDiSTEM, Portland Convention Center, Portland, OR, October 28<sup>th</sup>, 2023. Talk.
- 6. Marine AOA ecology shifts with Earth's climate (slides), The 2nd International GDGT Workshop, ETH Zurich, September  $8^{th}$ , 2023. Talk.
- 5. Archaeal lipids reveal distinct AOA ecology in past warm oceans (slides), Modern Geobiology Lecture Series, Department of Ocean Science and Engineering, Southern University of Science and Technology (SUSTech), June 12<sup>th</sup>, 2023. Talk.

- 4. A suppression of deep-water clades of marine ammonia oxidizers in past warm oceans, Biology and Paleo Environment (BPE) Fall 2022 Seminar Series, Lamon-Doherty Earth Observatory (LDEO), Columbia University, October 24th, 2022. Talk.
- 3. Untapped potential of archaeal lipids beyond ocean temperature reconstructions (recording), The Pal(a)eo EaRly Career Seminar (Pal(a)eoPERCS), Virtual Seminar, October 11th, 2022. Talk.
- 2. 2021-22 Schlanger Ocean Drilling Student Fellow Research Talks, 2022 Summer Meeting of the U.S. Advisory Committee for Scientific Ocean Drilling (USAC), American Museum of Natural History, NY, July 25th, 2022. Talk.
- 1. The Anthropocene: Human Footprints on Planet Earth (slides), Marine Science Department, Chulalongkorn University, one lecture for Global Biogeochemical Cycles, Course instructor: Dr. Chawalit "Net" Chareonpong, December  $8^{th}$ , 2021. Lecture.

### CONDUCTED IN THAI

- 4. Ammonia Oxidizers in Past Warm Oceans (slides), Department of Earth Sciences, Kasetsart University, one lecture for Dynamic Biosphere, Course instructor: Dr. Chatchalerm "Kendo" Ketwetsuriya. January 10<sup>th</sup>, 2023. Lecture.
- 3. Inferred paleoecology of marine archaea from today's oceans (recording), Department of Marine Technology, Burapha University, Virtual Marine Technology Colloquium #62, October 28th, 2022. Talk.
- 2. Life after resignation: 'Fulbright' has so much to offer (slides), Department of Geology, Faculty of Science, Chulalongkorn University, Virtual seminar, February 18<sup>th</sup>, 2022. Talk.
- 1. Fossil lipids: Thermometers for the Earth's climate history (recording), Department of Marine Technology, Burapha University, Virtual Marine Technology Colloquium #26, September 24<sup>th</sup>, 2020. Talk.

# Teaching |

### DEPARTMENT OF OCEANOGRAPHY, TEXAS A&M UNIVERSITY Undergraduate Classes (Class Size/Instructor Rating) Rating of "the instructor fostered an effective learning environment."

Scale: 1 (Strongly Disagree) to 5 (Strongly Agree)

# GRADUATE ASSISTANT LECTURER

The Blue Planet - Our Oceans (OCNG 251)

Spring 2021 (116/4.78), Summer 2021 (36/4.86), Summer 2022 (48/4.64), Fall 2022 (194/4.41)

#### **GRADUATE ASSISTANT - TEACHING**

The Blue Planet - Our Oceans (OCNG 251)

Spring 2023 (300/3.72)

Data Analysis Methods in Geosciences (GEOS 470)

*Spring 2023 (30/5.00)* 

# Mentoring |

#### DEPARTMENT OF OCEANOGRAPHY, TEXAS A&M UNIVERSITY ZHANG LAB MENTOR

College Station, TX

College Station, TX

Responsibilities: Trained on-campus and visiting undergraduate students on sample preparation (marine muds from ocean drilling programs) and lab procedures for archaeal lipid biomarker (specifically GDGTs) LC-MS analysis. Hands-on trainings are included, but not limited to: (1) freeze-drying samples, (2) homogenizing samples for total lipid extract (TLE) extraction using an Accelerated Solvent Extractor (ASE), (3) setting ACE methods, (4) purifying samples for LC-MS analysis (cellulose filtering and silica-gel column chromatography)

Undergraduate Student Mentees: Connor Wood (TAMU | Fall 2022-Spring 2023), Roy Jui-Yu Huang (Emory University | Summer 2022), Ray Tarpey (TAMU | Spring 2022), Natalie York (TAMU | Fall 2021)

# CHEVRON THAILAND EXPLORATION AND PRODUCTION LIMITED

Bangkok, Thailand

GEOLOGY MENTOR | ACCELERATED EARTH SCIENTIST ORIENTATION PROGRAM (AESOP), 2014-15

Responsibilities: Trained two new-hired geologists on geology-related works for targeting hydrocarbon in Gomin D drilling project

such as wireline logging interpretation, stratigraphic correlation, pore pressure prediction, and basic of well design, to achieve safe-andeffective drilling operations

Leaderships | Co-founder and Moderator | Thai Earth and Planetary Scientists in North America

Hosted and moderated semi-monthly discussions about earth and space sciences research for Thai students in the US who study earth and planetary sciences, May 2020-December 2020

STUDENT PRESIDENT | UNDERGRADUATE GEOLOGY STUDENT UNION, 2012-13 Department of Geology, Faculty of Science, Chulalongkorn University

Services | REVIEWER OF MANUSCRIPTS | 15 reviews for 12 papers submitted to the following refereed journals: Chemical Geology (n=2), Frontiers in Marine Science (n=1), Geochimica et Cosmochimica Acta (n=2), Geophysical

Research Letters (n=4), Nature Geoscience (n=2), Organic Geochemistry (n=1), Paleoceanography and Paleoclimatology(n=2), Science Advances (n=1)

DISCUSSION LEADER of the keynote session "Disciplinary Integrations with Organic Geochemistry" for the 2024 Gordon Research Seminar on Organic Geochemistry. July 27<sup>th</sup>, 2024.

CO-CONVENER AND CO-CHAIR of the session "Past Climates and Environments of Southeast Asia and the Indo-Pacific" (PaleoSEA) for the Paleoclimatology and Paleoceanography (PP) section at the AGU Fall Meeting since 2022. This is a dedicated PP session highlighting paleo-related works in Southeast Asia and the Indo-Pacific regions at AGU Fall Meeting.

CO-AUTHOR of the open letter from Early Career Researchers (ECRs) to NSF "On the Critical Importance of the U.S.-led Scientific Ocean Drilling" to express the concern regarding the future of NSF funding of U.S. scientific ocean drilling (SciOD). The letter was co-signed by 208 ECRs from 17 countries, representing 98 different institutions. July 8<sup>th</sup>, 2022.

Website coordinator of Geochemistry and Paleoceanography Research Lab (Zhang Lab), Department of Oceanography, Texas A&M University (TAMU), 2018–23

GRADUATE STUDENT SENATOR, A representative for Oceanography Graduate Council at Graduate Student and Professional Government General Assembly, TAMU, 2018–2022

• Coauthored GPSG.R.53.05 Resolution "Decarbonization and Fossil Fuel Divestment at Texas A&M University." The GPSG senate passed the resolution on  $April\ 21^{st}$ , 2020

TREASURER, Fulbright Students' Association, TAMU, May 2019–May 2020 EDITOR/CONTRIBUTOR, Climate Aware organization, January 2019–2020 TOUR DOCENT, R/V Sally Ride, AGU Fall Meeting 2019, San Francisco, CA, December 11th, 2019 BOARD MEMBER, FSA, TAMU, December 2018-April 2019 EARTH SCIENTIST KNOWLEDGE SHARING SESSION COORDINATOR, Chevron Thailand, 2017-18

Outreach | Press and Media

INTERVIEWED ARTICLES IN ENGLISH

1. Brave the World (online article), Fulbright Thailand, Stories of Fulbrighters' Impact—70<sup>th</sup> Anniversary of the Fulbright Program in Thailand, December 24<sup>th</sup>, 2021

INTERVIEWED ARTICLES IN THAI

- 5. Learn Plearn Plearn by PTip Podcast Episode 190 (podcast), Fulbright Thailand, January 23<sup>th</sup>, 2024
- 4. Talk with Fulbrighter: Ronnakrit Rattanasriampaipong (online article), Fulbright Thailand, May 18<sup>th</sup>, 2022
- 3. Recommended Field of Study: Paleoclimatology/Paleoceanography (online article), Fulbright Thailand, December  $8^{th}$ . 2021

- 2. Fulbright in My View (online article), Fulbright Thailand, Fulbright Experiences, October 6<sup>th</sup>, 2021
- 1. A journey without a map (online article), The Science Scholars Facebook page, June 16<sup>th</sup>, 2020

### PANEL DISCUSSIONS IN THAI

- 3. Fulbright Thai Graduate Scholarship (TGS): More Than Just a Scholarship (recording), Fulbright Thailand, Virtual event, February 17<sup>th</sup>, 2023
- 2. Meet the Fulbrighter Series: Study Pure & Applied Science in the U.S. (recording), Fulbright Thailand, Virtual event, March 31st, 2021
- 1. Meet the Fulbrighter Series: Doctoral Studies in the U.S. (recording), Fulbright Thailand, Virtual event, March 5<sup>th</sup>, 2021

Previous Department of Oceanography, Texas A&M University

College Station, TX

Research Doctoral Dissertation Research, 2018–23

Experience | Advisor & Committee Chair: Yige Zhang

Committee Members: Ethan Grossman, Robert Korty, Jason Sylvan

#### RESEARCH TITLE:

"Beyond TEX<sub>86</sub>: Evaluating Archaeal Evolution Coupled with Oceans and Climate Changes using Tetraether Lipids"

CHAPTER 1. Towards continuous sea surface temperature records inferred from archaeal lipids over the past 66 million years

- Identified spatio-temporal gaps in publicly available Cenozoic  $TEX_{86}$  records
- · Collected core samples at Gulf Coast Repository (GCR) (College Station, TX) for lipid biomarker analysis (multiple visits)
- · Conducted analytical work for coarse-resolution SST reconstructions from ten ODP/IODP sites
- Revisiting temperature calibrations with the new insight into the evolution of marine AOA paleoecology

CHAPTER 2. Archaeal lipids trace ecology and evolution of marine ammonia-oxidizing archaea

- Compiled and quality controlled an extensive dataset (n =  $\approx$ 4,000 entries from 79 publications) of isoprenoidal glycerol dialkyl glycerol tetraethers (GDGTs) derived from different archives
- · Identified diagnostic distribution patterns of GDGT assemblages that trace marine archaeal ecology and evolution
- Utilized modern statistical analyses and unsupervised clustering algorithms

CHAPTER 3. Investigating changes of oxygen in past oceans through the lens of lipid biomarkers

- Investigating the potential of overly-branched (OB-), branched (B-), and sparsely-branched (SB-) GDGTs as a proxy for oxygen deoxygenation events in past oceans
- Integrating available archaeal lipid data with gridded World Ocean Atlas (WOA) datasets, including temperature and oxygen, to extract modern-day distributions of the known range of glycerol ether lipids in several settings, including Black Sea, Arabian Sea, Eastern Equatorial Pacific (EEP)

DEPARTMENT OF GEOLOGY, CHULALONGKORN UNIVERSITY MASTER'S THESIS, March-June 2026 Advisor: John Warren

Bangkok, Thailand

### RESEARCH TITLE:

"Potential Sources of Mercury in Southern Pattani Basin, the Gulf of Thailand"

- Conducted the first geological assessment of mercury-contaminated produced hydrocarbon in the Gulf of Thailand with multi-disciplinary data including C-O isotopic analysis in siliciclastic cuttings
- Established and applied C-O isotopic analysis to siliciclastic cuttings
- · Established correlation of Hg-CO2 for multiple scales; from reservoirs to platforms scale

DEPARTMENT OF GEOLOGY, CHULALONGKORN UNIVERSITY Undergraduate Senior Year Research, 2011-13 Advisor: Kruawun Jankaew

Bangkok, Thailand

#### RESEARCH TITLE:

"Quantification of Tsunami Magnitude from Sedimentation Modeling of Re-occurring Indian Ocean Tsunamiites at Phra Thong Island, Phang Nga, Thailand"

- Tsunami sample preparation for grain size analysis, Earth Observatory of Singapore (EOS), Nanyang Technological University (NTU), Singapore, May 2013
- Fieldwork and sample collection of tsunami sediments, Phrathong Island, Phang-nga, Thailand, June 2011 -July 2013 (multiple field campaigns)
- Collaborated with research teams from EOS-NTU and Stockholms Universitet

Professional Chevron Thailand Exploration and Production Limited Experience | Development Geologist | Satun-Funan Asset Team, 2016–18 HORIZONS EARTH SCIENTIST | AESOP, 2013-15

Bangkok, Thailand

#### Highlighted Responsibilities:

- · Identify hydrocarbon potentials and conduct detailed geological assessments within the extensional basin (mainly fluvio-deltaic depositional environments) based only multiple data sets including wireline logs, 3D seismic, and historical production data
- Manipulate geological data from over 5,000 drilled wells and establish meaningful data visualizations such as detailed pore pressure analysis and geo-statistical reserves booking
- · Integrate cross-disciplinary data including geological, petroleum engineering, and drilling engineering data to optimize hydrocarbon exploration and production
- Re-evaluate and discriminate regional pore pressure and temperature regime to enhance the accuracy of predrilled reserves prediction for all undeveloped projects in the Gulf of Thailand
- · Developed a new method for reservoir pressure evaluation using wireline logging and gas show Student Intern, Reservoir Management Team, two consecutive summers, April-May 2012/13
- · Wireline logging interpretation (triple combo suites) and stratigraphic correlation (mainly fluvio-deltaic depositional environments)
- · Pore pressure profile prediction and oil and gas reserves estimation for YUWA platform
- Re-targeting geological targets for nine future platforms in Dara geologic trend

Undergraduate Student Intern | Reservoir Management Team, Summer 2012/23

### Highlighted Responsibilities:

· Well logging interpretation (triple combo suites) and stratigraphic correlation (mainly fluvio-deltaic depositional environments)

- Pore pressure profile prediction and oil and gas reserves estimation for YUWA platform
- Re-targeting geological targets for nine future platforms in Dara geologic trend

# Cruise/Field Department of Oceanography, Texas A&M University Experience | Research Staff, November $3^{rd}$ , 2018

College Station, TX

- Collected seawater samples with Niskin bottles in Galveston Bay
- Measured seawater properties (Conductivity, Temperature, Depth) using handheld CTD
- Observed other oceanographic sampling operations: seafloor grab sampling, water turbidity using Secchi disk, seawater pumping for biological and trace metal analyses

# CHEVRON THAILAND EXPLORATION AND PRODUCTION LIMITED SHORE-BASED OPERATIONAL GEOLOGIST, July-December 2017

Bangkok, Thailand

- Two infill projects in Jakrawan Gas Field: 20 wells drilled with 90% accuracy between pre-drill and post-drill hydrocarbon reserves estimations
- · Conducted real-time stratigraphic correlation (wireline triple combo) and re-evaluated pore pressure profile during drilling operations
- · Evaluated economic justifications on a well-by-well basis to optimize project costs and maximize hydrocarbon resources

# CHEVRON THAILAND EXPLORATION AND PRODUCTION LIMITED Wellsite Geologist Trainee, November 2<sup>nd</sup>-13<sup>th</sup>, 2014

Bangkok, Thailand

- · Observed and learned real-time drilling operations at Moragot E platform, Moragot gas field, the Gulf of Thailand
- · Key learning activities: Formation pressure acquisition, Formation Integrity Test (FIT), Rig-floor operations

# Technical ACADEMIA Reports |

Rattanasriampaipong, R. and Jankaew, K. (2012) Quantification of Tsunami Magnitude from Sedimentation Modeling of Re-occurring Indian Ocean Tsunamiites at Phra Thong Island, Phang Nga, Thailand. Undergraduate Senior Year Research Project.

#### INDUSTRY

# RECOMMENDED LOCATION, LOGGING AND CORING PROGRAM (RLLCP) GEOLOGICAL REPORTS, 2013-18

- · Provided a geological overview of the targeted intervals for 4 drilling projects including Satun N, Moragot F, Jakrawan G, and Jakrawan D
- · Assessed geological risks and evaluated hydrocarbon potentials of the project
- Designed wireline logging program including formation testing

# Workshops | Professional Development

Lab visit the Lab for Molecular Biogeochemistry and Organic Geochemistry (Pearson Lab), Department of Earth and Planetary Sciences, Harvard University, Cambridge, MA, October 24<sup>th</sup>-30<sup>th</sup>

Gaining hands-on experience on the Spooling-Wire Microcombustion device interfaced with an Isotope-Ratio Mass Spectrometer (SWiM-IRMS) with Dr. Ann Pearson and PhD student Amanda Calhoun.

16th NOAA Climate and Global Change Postdoctoral Fellowship Summer Institute, Holiday Inn, Steamboat, CO, July 14<sup>th</sup>-19<sup>th</sup>, 2024

Paleoclimate Data Assimilation: Challenges, Innovations, & Opportunities, The University of Arizona, Tucson, AZ, October 18<sup>th</sup> -21<sup>st</sup>, 2022

PaleoCAMP 2022 summer school, the inaugural Heising Simons Foundation-sponsored paleoclimate short course, Sierra Nevada Aquatic Research Laboratory (SNARL), Mammoth Lakes, CA, July 11<sup>th</sup> –22<sup>nd</sup>, 2022. (25 attendees from 132 applicants)

Science Mission Requirements (SMR) Workshop for a Globally-Ranging Riserless U.S. Drilling Vessel, NSFsponsored USSSP-IODP workshop, Chicago, IL, May 17<sup>th</sup>-18<sup>th</sup>, 2022

LinkedEarth PaleoHackathon 2, Virtual Python Workshop, October 28<sup>th</sup> -29<sup>th</sup>, 2021

### G.R.A.D. Aggies Professional Development Program

Texas A&M University

NSF: The Agency, Proposal Preparation & Review, February 19<sup>th</sup>, 2020

Open Educational Resources Workshop, September 13<sup>th</sup>, 2019

Creating a Life of Balance & Wellness, September 10 $^{th}$ , 2019

#### FOREIGN FULBRIGHT STUDENT PROGRAM

Innovations in Civic Engagement: Harnessing Data for the Public Good, Philadelphia, PA,  $March \tau^{th} - 10^{th}$ , 2019

Pre-Academic Orientation Program, Ohio University, Athens, OH, July 28th -August 18th, 2018

CHEVRON IN-HOUSE TRAINING BY ENERGY COMPANY TECHNOLOGY

Reservoir Geophysics, November 21st -25th, 2017

Applied Concepts of Structural Geology, June 12<sup>th</sup> –16<sup>th</sup>, 2017

Stratigraphic Analysis of Shallow Marine and Fluvial Reservoirs, May 29<sup>th</sup> – June 2<sup>nd</sup>, 2017

Basic Reservoir Engineering, December  $15^{th}$  –  $19^{th}$ , 2014

Formation Evaluation (Fundamentals), October 6<sup>th</sup>-9<sup>th</sup>, 2014

Applied Stratigraphic Concepts, August 4<sup>th</sup> -8<sup>th</sup>, 2014

Applied Subsurface Geological Mapping, June 23<sup>rd</sup>-27<sup>th</sup>, 2014

Applied Petroleum Geochemistry, April 21st-24th, 2014

CHEVRON IN-HOUSE TRAINING BY NAUTILUS

Interpretation of 3D Seismic Data, November 14<sup>th</sup>-17<sup>th</sup>, 2016

Professional Student Member, American Association for the Advancement of Science (AAAS), 2019–2023

Student Member, American Geophysical Union (AGU), 2018 - Recent Societies |

Student Member, American Association of Petroleum Geologists (AAPG), 2013–2023

Secretary, Thailand Society of Exploration Geophysicists (TSEG), 2015-2016

Student Member, Society of Petroleum Engineers (SPE), 2010-2013

Skills | Documentation and artworks: MS Office Suites, LaTeX (Overleaf), Adobe Illustrator Data Analytics and Visualizations: Python, MATLAB, ArcGIS, Tableau, and Spotfire

Languages | Thai (Native), English (Full professional proficiency)

Personal Ultra-trail running, Marathon, Non-fiction books, Science communication, Infographics, Data visualization Interests |