

Chawit “Poom” Kritpracha

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Education

Rice University, Houston, TX

Aug 2019 - May 2023

Bachelor of Arts, Computational and Applied Mathematics

Mathematics

Graduated with a Distinction in Research and Creative Work

Research Experience

Undergraduate Researcher

May 2022 - Present

Rice University

- Worked on modeling a closed-loop compartmental model for solute transport in the human circulatory system with applications to Exercise and the Fontan circulations.
- Presented results at the Gulf Coast Undergraduate Research Symposium (awarded Outstanding Session Presentation) and Purdue Engineering Virtual Graduate Showcase.
- Supervised by Dr. Beatrice Riviere and Dr. Charles Puelz.

Undergraduate Research Assistant

Jan 2022 - May 2022

Rice University

- Implemented dynamically indicating algorithms for a partial differential equation solver that determines between the usage of a finite volume method and discontinuous-Galerkin method in MATLAB.
- Supervised by Dr. Boqian Shen and Dr. Beatrice Riviere.

Cofounder – Team member

Sep 2019 - Sep 2020

International Physicists’ Tournament

- Cofounded the Rice University team with support from the Physics and Astronomy department.
- Placed third in internationals hosted by University of Warsaw.
- Placed first in nationals hosted by University of California, Berkeley.

Senior Design Project

Aug 2022 - Present

Rice University – Worley

- Working on adopting algorithms to identify complex objects from a point cloud data set via machine learning.
- Working as part of senior design project and in collaboration with Worley Ltd.

Teaching & Mentoring Experience

Rice Learning Assistant

Aug 2021 - May 2022

Rice University

- Introduction to Engineering Computation (CAAM 210) with Dr. Anastasiya Protasov.
- Hosted weekly lectures going over the week’s material, and devised hands-on coding examples to prepare students for the week’s assignment.

Teaching Assistant

Aug 2020 - Dec 2020

Rice University

- Single Variable Calculus I (MATH 101) with Dr. Jacob Russell-Madonia.
- Facilitated and moderated in-class group discussions in a flipped classroom environment.

New Student & Orientation Week Advisor

Aug 2020 - May 2021

Rice University

- Advised a cohort of incoming students during the university’s orientation week and the following school year.

Team Mentor & Juror

Jul 2020

Institute for the Promotion of Teaching Science and Technology

Bangkok, Thailand

- Mentored Thailand’s national team in their preparation for the 2020 International Young Physicists’ Tournament (online).
- Nominated and served as one of the jurors for the competition.

Awards & Honors	Michael Ross Franco Award		12/07/2022
	Award given to Rice undergraduates who are exemplary computational and applied math students.		
Work Experience	Grader		
	• Introduction to Engineering Computation (CAAM 210)	Aug 2021 - May 2022	
	• Single Variable Calculus I (MATH 101)	Aug 2020 - Dec 2020	
	Technology Assistant	Aug 2020 - May 2021	
	Rice University		
Presentations	• Aided instructors in setting up and facilitating a hybrid or fully-online classroom.		
	Housing and Dining Student Worker		Jan 2020 - April 2020
	Rice University		
	• Operated cashier deck and did maintenance at one of the university’s dining hall.		
Languages	Gulf Coast Undergraduate Research Symposium		10/08/2022
	A Zero-Dimensional model for Solute Transport in the Human Circulatory System, Hosted by Rice University. Awarded Outstanding Session Presentation.		
	Purdue Engineering Virtual Graduate Showcase		09/26/2022
	A Zero-Dimensional model for Solute Transport in the Human Circulatory System, Hosted by Purdue University.		
	CMOR Graduate Seminar		01/18/2023
	Modeling Exercise and Exercise Capacity in Fontan Patients, Hosted by CMOR Department, Rice University.		
	Programming MATLAB (proficient), Python (intermediate), C/C++ (novice)		
	Markup LaTeX (proficient), HTML (novice)		
	Spoken English (native), Thai (native)		