

Tae Geun Kim

Graduate Student



axect.github.io



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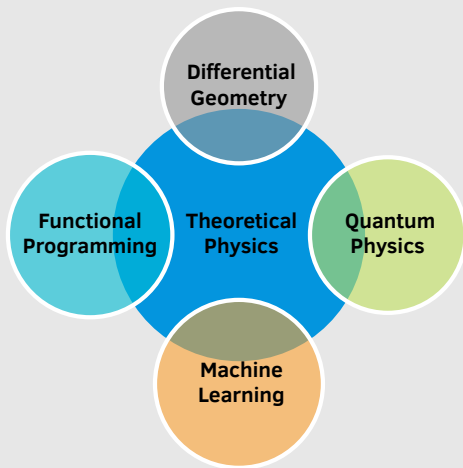
/in/tae-geun-kim



github.com/Axect

Knowledge

Overview



Programming

0 LOC → 5000 LOC

Rust

Go • Haskell • D

Python • Julia • Scala • R • Chapel

C • C++ • Nim • Elixir

Education

MSc. Candidate, Physics

Specialization: Particle Physics

Yonsei University

2017 - | Seoul, South Korea

BSc., Astronomy

Yonsei University

2012 - 2017 | Seoul, South Korea

Research Interests

Geometric method in mathematical physics, General relativity, Scientific computation and Machine learning for High energy physics.

Experience

Mar 2017 - Feb 2018 Web Assistant

College of Science, Yonsei Univ.

- Developed and maintained new web page of College of Science, Yonsei University with flask.
- Main work: Debugging and data uploads
- Tool: Apache, CSS, JS, Flask, MySQL

Mar 2017 - June 2017 Teaching Assistant

Yonsei Univ.

- TA for PHY4205-01 (Mathematical Physics(1))
- Main work: Delivered several lectures for general relativity and Scoring
- Adviser: Seodong Shin, Dept. of Physics, Yonsei Univ.

Mar 2016 - Feb 2017 Undergraduate Intern

Yonsei Univ.

- Studied quantum field theory, general relativity and performed several projects.
- Projects: Practice of HEP calculation tools with ϕ^4 theory
Tools: MG5_aMC, CalcHep, Mathematica
- Adviser: Seong Chan Park, Dept. of Physics, Yonsei Univ.

Educational Experience

2018 Schools

- The 9th KIAS CAC Summer School on Scientific computing and Machine learning (KIAS, 26-29 June)

2017 Schools

- The first MadAnalysis 5 workshop on LHC recasting in Korea (KIAS, 20-27 August)
- 2017 Summer School on Cosmology and Particle Physics (IBS-CTPU, 7-11 August)

2016 Schools

- 2016 Winter School on Cosmology and Particle Physics (IBS-CTPU, 12-23 December)
- KIAS-QUC Winter School on Collider Physics (KIAS, 26-29 December)

2015 Schools

- Yangpyeong Particle Physics School (KIAS, 17-20 December)

Honors and Awards

Aug 2017 - Dec 2017 Theoretical Study of Particle Physics and Early Universe

IBS CTPU

Programming Projects

Sep 2018 - Present	Peroxide Rust numeric library with easy syntax	crates
	<ul style="list-style-type: none">• Rust numeric library contains linear algebra, numerical analysis, statistics and machine learning tools with R, MATLAB, Python like macros.• Tools: Rust, Cargo, Travis CI	
Jul 2018 - Sep 2018	DNumeric D numeric library with R syntax	dub
	<ul style="list-style-type: none">• D numeric library for linear algebra and statistical programming with R syntax.• Tools: D, dub	
May 2018 - Jul 2018	HNumeric Haskell Numeric Library with pure functionality, R & MATLAB Syntax.	hackage
	<ul style="list-style-type: none">• Haskell numeric library implemented by pure functional paradigm.• Tools: Haskell, Stack, Cabal, Travis CI and Hackage CI	
Jan 2018 - Dec 2017	Hepframework High Energy Physics Tools on Fedora 27	docker hub
	<ul style="list-style-type: none">• Docker container for High energy physics tools.• Tools: Docker, Jupyter, Shell script• HEP Tools: CERN-ROOT 6, MG5_aMC, CalcHEP, MicrOmegas, Opti-Mass	
May 2017 - Nov 2017	Yonsei HEP-COSMO Web page Laboratory web page with Django & Linux server	Yonsei HEP-COSMO
	<ul style="list-style-type: none">• Tools: Django, Apache, MySQL	
Aug 2017 - Oct 2017	RGE Go & Julia package to solve Renormalization Group Equation	github
	<ul style="list-style-type: none">• Golang Package which solves RGE & generates plot with Julia.• Tools: Go, Julia, Glide	