Wisha Wanichwecharungruang

9 Sunset Blvd., Houston, Texas, USA 77005
wisha@rice.edu · +1 (832) 331-3861
Website: wisha.page · LinkedIn: linkedin.com/in/wisha-w · GitHub: github.com/wishawa

Education

Rice University, Houston, TX — 2021 – Present
BA, Computer Science & Physics — Exp. Graduation 2025
GPA: 3.95/4.00 (4 semesters completed)

Skills

Technical Skills: Rust, Python, JavaScript, MATLAB, Mathematica, Java, C, Web Technologies, Linux & UNIX, Git

Relevant Coursework/Knowledge: Data Structures, Algorithms, Dynamic Programming, Object-Oriented Programming, Concurrency, Operating Systems

Experiences

Geckotech, *Intern* — May - August 2023

- Designed and implemented the Rust *Async UI* WebAssembly GUI framework based on a novel UI-as-side-effect concept.
- Made *X-Bow*, a diff-free Rust state management library based on "lenses".
- Used *Async UI* and *X-Bow* to build a GUI application for working with *polars* dataframes, featuring
  - ability to load data from local and internet sources through an extensible interface,
  - data transformation (filter, join, sort, etc.) guided by table structure and *polars* data types,
  - Excel-style formulas that translate to *polars* expressions for fast column-wise calculations,
  - efficient reactive computation on graphs of transformations.

RuamDuang, *Co-Founder & Lead Developer* — August 2020 - Present

- Lead development team to implement app, website, and back-end services for a horoscope review crowd-sourcing platform with over 10K monthly users.
- Created front-end iOS, Android, and web apps using React Native / Expo, and back-end server connecting to MongoDB, Elasticsearch, and S3/Backblaze.

Physics Research — May 2022 - Present

- Implemented algorithms to numerically simulate spin-1 self-interacting ultralight dark matter fields in Python; used NumPy, SciPy, and Matplotlib.
- Studied how random fields can evolve into solitons under different physical parameters.
- Co-authored a paper published in the American Physical Society journal Physical Review D.
- Won outstanding undergraduate presentation award at the Texas American Physical Society meeting.

Awards

- Louise J. Walsh Scholarship in Engineering — Rice U. School of Engineering — 2023
- Bonner Book Award — Rice U. Dept. of Physics & Astronomy — 2023
- Summer Undergraduate Research Fellowship fund — Rice U. Dept. of Physics & Astronomy — 2022
- First place winner (with 3 teammates) in the *Rice Datathon* data science hackathon — 2023
- First place winner (with 3 teammates) in the *HackRice* hackathon — 2022
- Second place winner in the Rice *ICPC* programming competition — 2022