Thomas Kaldahl

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github.com/ei14 ↗

Education

- Rice Univ. *Aug. '20 – Dec. '24*
  - BSc. of Mathematics
  - Cumulative GPA: 3.78
- Clements HS *Aug. '16 – May '20*
  - GPA: 4.00

Math Courses

Abst. Algebra	I, II, Grad. Level I
Analysis	Honors Real I, Real II, Honors Linear, Complex
Calculus	Honors III, IV

Programming

Very familiar:	C, Python, Linux Shell
Familiar:	JavaScript, C++, Java
Used:	C#, PHP, Go, Lua, x86 Assembly

Software Experience

Engineering:	KiCad, FreeCAD
3D Arts:	Blender, Unity
2D Arts:	GIMP, Inkscape, Krita
Audio:	Audacity, LMMS
Markup:	LaTeX, HTML & CSS

Misc. Skills

Japanese language training

Electronics, PCB design

Woodworking, welding experience

Research

- Coronavirus Genetic Analysis *Summer '22 & '23*
  - Wrote scripts to organize DNA data from raw outputs
  - Constructed phylogenetic trees using BEAST
  - Worked under Dr. Andrew Kitchen, University of Iowa
- Combinatorics & Graph Theory *Summer '21*
  - Wrote software to analyze certain properties of graphs
  - Proposed novel conjecture on graph property
  - Worked under Dr. Peter Blanchard, University of Iowa

Leadership

- Co-president of Rice AWM *Fall '23 – Spring '24*
  - AWM: Association for Women in Mathematics
  - Planned university events with other co-president to invite more people to the math community
- Technical officer of JETS *Fall '17 – Spring '18*
  - JETS: Junior Engineering & Technical Society
  - Participated in Science Olympiad team *(see award)*
  - Co-coordinated statewide Science Olympiad tournament
    * Designed & deployed live scheduling system for sponsors to view & reserve timeslots in real-time
    * Created latency-correcting website to sync across several computers and time contestants
  - Created secure account database & front-end website

Awards

- Putnam Math Competition – Top 21% *Fall '22*
- Rice University Hackathon *Fall '21 & '22*
  - 2nd place overall in 2022 – team of 4
    * Crisis aversion app/network for university students to seek acute care for mental health emergencies ↗
  - 3rd place in 2021 – 1st among "First Timers" – team of 3
    * Disability accessibility interface for motor-impaired people to navigate YouTube ↗
- Rice University Scholarship, full tuition *Spring '20*
- Trinity University: Tower Scholarship, full tuition *Spring '20*
- Science Olympiad team, 6th place nationally *Spring '17*
  - Designed & implemented touch-compatible user interface to simulate & control robot arm in real-time
  - Created 3D models in parametric CAD for chassis of model electric vehicle