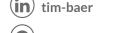
630-841-2533





Education

BS | Computer Science & Math

University of Illinois | May 2022 Urbana-Champaign, IL

- CS GPA: 3.80
- Cumulative GPA: 3.70

Coursework

Algorithms & Numerics

Parallel Numerical Algorithms Tensor Computations Randomized Algorithms Approximation Algorithms Algorithms Introduction to Algorithms Numerical Analysis Data Structures

Systems

Parallel Programming Communication Networks* System Programming Computer Architecture

Math

Abstract Linear Algebra (Honors) Probability & Statistics Introduction to Combinatorics* Elementary Real Analysis Differential Equations Fundamental Mathematics (Honors)

Technical Skills

Languages

Advanced

 $\mathbb{C}++$

C Python

Intermediate

Java

Javascript

General

Software

Docker • Kubernetes MPI • OpenMP • CUDA Jenkins • Sonar Qube • Jacoco Git • ATFX • Maven

Libraries

Numpy • Scipy • Boost Tensorflow • Horovod • BytePS Ray • NCCL • Cyclops

Experience

C3.ai | Software Engineering Intern (Machine Learning), Platform

Jun 2021 - Aug 2021 | Redwood City, CA

- Researched open-source distributed deep learning frameworks & designed end-to-end integrations with the platform.
- Developed a transpiler for Python code generation to avoid serialization of large arrays across languages, improving performance up to 4000x.
- Presented hour-long talks on internship work & undergraduate research.
- Selected for a filmed 1:1 intern testimonial interview published to C3.ai's website.

Laboratory for Parallel Numerical Algorithms | Research Assistant Aug 2019 - Current | Urbana-Champaign, IL

- Currently researching parallel/distributed approximate SSSP.
- Designed & implemented a parallel/distributed MSF algorithm that outperforms the state of the art.
- Developed a communication-efficient multilinear kernel to optimize a common type of graph update.
- Presented multiple invited talks with a theme of graph & tensor algorithms.

IBM | Software Engineering Intern (Backend), Db2z Tools

Jun 2020 - Dec 2020 | Virtual

- Integrated static/dynamic code analysis into CI pipeline to detect security issues.
- Automated API & unit tests to improve code coverage by 85%.
- Developed a new internal documentation tool.

Software Design Studio | Course Assistant

Aug 2019 - May 2020 | Urbana-Champaign, IL

- Moderated weekly code review sessions focusing on best practices.
- Graded & provided constructive feedback on C++/Java assignments.
- Interviewed new hire candidates.

Publications

Parallel Minimum Spanning Forest Computation using Sparse Matrix Kernels

Tim Baer, Raghavendra Kanakagiri, and Edgar Solomonik Accepted to SIAM PP 2022.

Selected Awards

CRA Outstanding Undergraduate Researcher Award

Honorable Mention

This award program recognizes undergraduate students in North American colleges and universities who show outstanding research potential in an area of computing research.

Franz Hohn and J.P. Nash Scholarship

Awarded to one undergraduate in recognition of outstanding scholarship and promise in applied mathematics, computational science, or scientific computing.

James Scholar

Selection is based upon academic achievement as well as diversity of identity. geography, and major/area of study.

^{*} Spring 2022