



Education

BS | Computer Science & Math

University of Illinois | December 2021
Urbana-Champaign, IL

- CS GPA: 3.85
- Cumulative GPA: 3.68
- James Scholar

Coursework

Computation

Algorithms*
System Programming*
Tensor Computations*
Data Structures
Introduction to Algorithms
Computer Architecture
Numerical Analysis
Software Design Studio
Discrete Structures
Freshman Honors

Math

Abstract Linear Algebra (Honors)
Differential Equations
Fundamental Mathematics (Honors)
Calculus III (Honors)

Skills

Languages

Advanced
C++
C
Python

Intermediate

Java
Javascript
Haskell

General

Software
Docker • Kubernetes • MPI
Git • \LaTeX • SQL
OS
Linux • Mac • Windows
Libraries
Numpy • Scipy • Boost
Node.js • Cyclops

* Fall 2020

Experience

IBM | Backend Software Developer Intern

Jun 2020 - current | San Jose, CA

- Integrating static and dynamic code analysis into CI pipeline
- Automating API and unit tests for backend to improve code coverage by 85%
- Developing and contributing to a new internal documentation tool

Laboratory for Parallel Numerical Algorithms | Research Assistant

Aug 2019 - current | Urbana-Champaign, IL

- Currently designing algebraic multigrid preconditioners with graph techniques
- Designed and implemented a distributed minimum spanning tree algorithm that outperforms the state of the art
- Developed a novel communication-avoiding kernel for multilinear maps

Software Design Studio | Course Assistant

Aug 2019 - May 2020 | Urbana-Champaign, IL

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

All Information Services | Technology Intern

May 2019 - Aug 2019 | Oak Brook Terrace, IL

- Automated client workflow for file syncing with Microsoft Graph API
- Developed Flask app to integrate and extend Slack with our service desk platform
- Leveraged NLP to automate classification of support ticket issue types

Introduction to Computer Science | Course Assistant

Jan 2019 - May 2019 | Urbana-Champaign, IL

- Facilitated a lab section with a teaching assistant to enhance lecture material
- Held office hours to debug students' programming assignments and provide additional support on an individual basis

Selected Projects (Non-Research)

Shopical: Shop Ethical

IBM Intern Hackathon 2020

- Developed mobile app that leverages ML to highlight harmful ingredients in consumer products in real-time
- Won 2nd place in the climate change division (126 teams across 3 divisions)

Evolution in the Stock Market

CS @ ILLINOIS Sail 2019

- Taught a class to 50+ high school students interested in computer science
- Developed a Jupyter notebook to apply genetic algorithms to real-time stock data

Self Driving Car Simulator

Fall 2018

- Implemented a "self-driving" car in GTAV with computer vision
- Integrated a deep learning algorithm to identify pedestrians and vehicles
- Deployed vision code to cloud GPU