

Nathan Shao

Carnegie Mellon University '22, Computer Science B.S

✉ nshao@andrew.cmu.edu

📞 2069026898

📍 Bellevue, WA, United States

EDUCATION

BS in Computer Science

Carnegie Mellon University

08/2018 - Present

Technical Coursework

- Introduction to Computer Systems
- Database Systems
- Principles of Software Construction
- AI Representation and Problem Solving
- Parallel and Sequential Data Structures and Algorithms
- Great Theoretical Ideas in Computer Science
- Web Application Design and Development

Minor in Business Administration

Carnegie Mellon University

08/2018 - Present

Courses

- Organizational Behavior
- Social Psychology
- Managing Across Cultures
- Writing for the Professions

ORGANIZATIONS

Carnegie Mellon Varsity Swim Team
(08/2018 - Present)

Committed to 20+ hours of weekly training on a 70+ person team to compete nationally

Sigma Phi Epsilon (01/2019 - Present)

Creating a better personal and professional growth experience as a part of the Member Development Committee

Carnegie Mellon Orientation (03/2020 - Present)

Leading a group of 100+ new CMU students to start college and collaborating with 10+ other orientation staff

SKILLS

Azure

C

C#

C++

Django

HTML/CSS

Java

Javascript

PostgreSQL

Postman

Powershell

Python

SQL

SML

.NET SDK

INTERESTS

Hiking

Swimming

Reading

Skydiving

Electronic Music

Board Games

WORK EXPERIENCE

Software Engineering Intern

Microsoft Corporation, R&D Data - Orcas

05/2021 - 08/2021

Redmond, WA

Achievements/Tasks

- Researched and integrated the Azure Data Factory with an automated migration Finite State Machine using C# and the .NET SDK to triple the speed of offline database migrations.
- Created an efficient data migration process for databases over 1 TB in size, by taking advantage of ADF activity parallelization and concurrent writes.
- Provided customers with a simplified database migration process by automating 90% of the manual steps.

Software Engineering Intern

Microsoft Corporation, Azure SQL DB R&D

05/2020 - 08/2020

Redmond, WA

Achievements/Tasks

- Researched and designed the expansion to the Database Migration Assistant to include recommendations for migration from SQL Server databases to Azure Serverless databases.
- Implemented this expansion to automate the process for customers looking to move to the cloud who are interested in a cost effective database option.
- Collaborated across different teams including data science, SQL Server R&D, and Azure Serverless.

Software Engineering Intern

Grandy

05/2019 - 07/2019

San Francisco, CA

Achievements/Tasks

- Developed dynamic web pages with ReactJS to facilitate a smooth, more effective, cross-platform user login process and allow for a more intuitive app experience.
- Improved Python backend to accurately interact with third-party software to enhance user reminders and account functionality.
- Created codebase outlines and documented API calls using Swagger.io to assist future developers as one of the first two software engineers.

PERSONAL PROJECTS

CMUQueue - A new office hours queue for Carnegie Mellon

- Designed and deployed a new and improved CMU Office Hours queue.
- Utilized Django and Python for handling web API calls, and use Javascript, HTML, Bootstrap, CSS for front end development.

Flood Detection Through Machine Learning (Hack CMU)

- Developed program using Keras to detect flooding with the Google Maps API and identify flooded roads for first responders.
- Awarded first place in the Social Good category, second place in the Google AI Category.