

SPENCER NG

Chicago, IL · spencerng@uchicago.edu · github.com/spencerng

EDUCATION

The University of Chicago

BA in Computer Science, Minor in Theater & Performance Studies

GPA: 3.99 | Activities: University Theater (Stage Manager), Uncommon Hacks (Co-Director), Magic

Chicago, IL

Expected June 2023

EXPERIENCE

Verizon - Sports Innovation Team

Emerging Technologies Intern

- Creating mobile experiences integrating AR and tracking technologies for NBA and NFL teams

Basking Ridge, NJ

June 2021 - Present

Human-Robot Interaction Lab (University of Chicago)

Research Assistant

- Facilitating user studies by writing and documenting Robotics Operating System wrappers in Python
- Programming interactive robot demos with speech recognition, path planning, and object detection

Chicago, IL

Oct. 2020 - Present

University of Chicago IT Services

Network Architecture Developer

- Automated campus network maintenance by creating Python interface to determine real-time device status and backup/sync device configurations between Netbox, Box, and local storage

Chicago, IL

Oct. 2019 - June 2021

University of Chicago Computer Science Department

Teaching Assistant & Course Grader

- Provided constructive feedback, designed assignments, and hosted office hours for 75+ students in functional programming, data structures, and electronic circuit courses
- Increased grading accuracy and efficiency by building scalable autograding system for Haskell and C via Criterion tests, Gradescope, and Docker

Chicago, IL

Sep. 2020 - June 2021

Argonne National Laboratory

Research Intern

- Created deep learning models with YOLO and PyTorch to extract visual features from images
- Determined the most bandwidth-optimized samples for retraining machine learning models by designing a parallelized Python pipeline to run inference on simulated edge sensors

Lemont, IL

June 2020 - Sep. 2020

University of Chicago Laboratory Schools

Metcalf Intern

- Analyzed online learning trends and measured effectiveness of video conference platforms
- Created dashboards with Tableau to visualize Google Meet, Zoom, Schoology, and Seesaw data

Chicago, IL

Apr. 2020 - June 2020

New Jersey Institute of Technology

Neural Engineering Research Intern

- Developed a Unity game with C# to diagnose hearing disabilities
- Created real-time algorithms to simulate pitch shifting and sound localization

Newark, NJ

June 2019 - Sep. 2019

SKILLS

Languages: *Proficient:* Python, C, Java, C++ *Familiar:* JavaScript, C#, Haskell, HTML, CSS, R
Libraries: Google Cloud, Android, Unity, ROS, PyTorch, Pandas, OpenCV, .NET, REST APIs, React
Tools: Git, JSON, Tableau, Unix/Linux, Docker, GitLab/Travis CI, Maya, Adobe Creative Suite

TEAM PROJECTS & ACTIVITIES

Hackathons

Best Use of Google Cloud Winner, PennApps XXI

- Summarized terms in online privacy policies with 90% accuracy by training a custom natural language processing model and writing a Python-based Google Cloud AI API backend for AutoTOS
- Detected and classified recyclable items to find nearby recycling centers by creating an Android app built with the Google Vision API, Google Maps API, and Earth911 search

Philadelphia, PA & Remote

Sep. 2016 - Present

Laundry Manager and Optimizer

github.com/spencerng/lmao

- Recognized laundry tag symbols on clothing by designing a touchscreen Internet of Things hamper using Raspberry Pi, 3D-printed parts, custom circuitry, OpenCV template matching, and PyQt

Philadelphia, PA & Edison, NJ

Sep. 2018 - June 2019