Christopher Cheng

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EDUCATION

Cornell University, College of Engineering, Ithaca, NY   **Aug. 2021–May 2025**
Bachelor of Science in Computer Science **[GPA: 3.49]**
Dean's List: Spring 2022, Fall 2023
Relevant Courses: Computer Architecture, Computer System Organization and Programming, Statistics and Probability, Large-Scale Machine Learning, Introduction to Machine Learning, Analysis of Algorithms, Functional Programming and Data Structures, Data Structures and OOP in Java, Discrete Structures, Linear Algebra

Technical University of Denmark, Engineering Exchange**,** Kongens Lyngby, Denmark   **Jan. 2024–May 2024**
Relevant Courses: Artificial Intelligence, Bayesian Machine Learning, Compiler Construction, Network Security

SKILLS

Programming Languages: Python, Java, C/C++, OCaml, F#, Verilog
Technologies/Tools: AWS, Git, Docker, Postman, SpringBoot, Flask, Jira, Numpy, PyTorch, Pandas

PROFESSIONAL EXPERIENCE

Amazon Web Services, Seattle, WA*, Software Dev. Engineer Intern, AI Computer Vision*   **June 2024–Aug. 2024**
- Implemented ECS service discovery proof of concept as an enhancement to the current routing strategy for AWS Rekognition products, increasing the availability and throughput of customer-facing API requests
- Performed Python load testing to ensure customer requests were being routed accurately and measure latency
- Modeled AWS Rekognition backend using AWS Elastic Cloud Services, Elastic Compute Cloud, and Cloud Map

BAE Systems, Endicott, NY, *Technical Intern, Operations and Metrics*   **June 2023–Dec. 2023**
- Developed Python algorithm to increase readability of SMT machine data of and convert to CSV format for analysis, increasing accessibility to data and saving ~10 hours per week cleaning the outputs
- Implemented Python script to streamline performance of scheduled SQL queries of more than 5,000 data rows
- Designed graphical user interface using Tkinter allowing users to view FactoryLogix user accounts with invalid certifications and write query results to a new or existing file

Code Ninjas, Westfield, NJ, *Lead Tutor*   **June 2022–Aug. 2022**
- Led summer camps for 100+ children ages 8-14 with a focus on the fundamentals of coding and robotics
- Taught skills of game design, programming, graphic design, and playtesting through Scratch and Roblox

CAMPUS INVOLVEMENT

Acharya Research Group, Cornell University, Undergraduate Researcher   **Sep. 2024–Present**
- Assist in statistics research on finding the optimal number of samples in three-sample hypothesis testing

Cornell Autonomous Sailboat Team (CUSail), Cornell University, Navigations Subteam Member   **Sep. 2022–May 2024**
- Refined neural network to optimize sailing by using Deep Deterministic Policy Gradient reinforcement learning algorithm and performed hyperparameter tuning on the Gazebo and ROS simulator environment
- Programmed Python search algorithm using convolutional neural network for computer vision

PROJECTS

Maestro
- Developed Java backend for an online platform for event planners to hire private musicians and groups
- Utilized AWS S3 & Athena to store and make updates to Java objects in JSON format
- Employed SpringBoot to establish endpoints, controllers, and services to facilitate database operations, and tested these HTTP requests and API connections using Postman

Youtrition
- Implemented Python backend for an online web service to provide users with healthy, new recipes by determining nutritional deficiencies in their diets by parsing pictures of their recipes
- Leveraged Clarifai API for object detection and utilized Flask for API testing and to ensure no data loss

Moneyball
- Trained and tested a neural network using PyTorch to predict salaries of NBA players from their regular season statistics, utilized Pandas and Scikit-learn for data preprocessing as well as training and test splits