

David Chang

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EDUCATION

New York University

B.S. in *Computer Science*

Minor in *Integrated Media and Design*

New York, NY

Expected May 2024

- **Dean's List** – Spring 2023
- **Relevant Courses:** Algorithms, Data Structures, Object-Oriented Programming, Software Engineering, Computer Architecture, Databases, Machine Learning, Natural Language Processing, Artificial Intelligence, Open Source Software Development, Deep Learning

WORK EXPERIENCE

Infrastructure Manager, OSIRIS Lab

May 2023 – Ongoing

- Managed live server environment using VMware ESXi hypervisor to partition resources for lab members research
- Optimized infrastructure with Docker and Kubernetes by templating 7 public facing services and deployments
- Improved documentation of network infrastructure through network diagrams and configuration management
- Developed Flask web services of Offensive Security class @ NYU with 100+ students and faculty using Docker containers

Software/Systems Engineer Intern, National Geospatial-Intelligence Agency (NGA),

May 2022 – August 2023

- Organized compartmentalized datasets in Gitlab and revised CI/CD workflows to improve code deployment efficiency
- Presented machine learning regression solution in AWS Sagemaker to simplify accounting systems and budgeting
- Developed UI-testing library using Selenium and Javascript to perform code unit-tests replacing manual testing

Software Engineer Intern, SmartAxiom Inc.

June 2019 – July 2019

- Implemented ECDSA key exchange algorithm using Python to initiate secure connections with IoT devices
- Presented system design implementation to integrate into private blockchain-style network to management

PROJECTS

Cybersecurity Awareness Week (CSAW) CTF Organizer

Sept 2023

- Implemented AWS Cloudformation template to automate deployments of containerized Python Flask web service
- Organized weekly sprint meetings, industry presentations, and tag-ups with 4 infrastructure engineers
- Developed systems on AWS Elastic Container Service to support over 1500 teams and 18000 concurrent connections

Genre Prediction Machine Learning

March 2023 – May 2023

- Developed a classification model with sklearn and Pytorch to predict the genre of audio samples using neural networks
- Implemented extraction of 60+ analog features from with Python signal analysis tools using Librosa

NYU Blind

September 2022 – May 2023

- Utilized Bootstrap to develop front-end elements to improve user UI in collaboration with end-user requests
- Developed back-end API with Python Django to integrate backend calls to machine learning chat filtering model
- Developed a web application with Python and Django to serve as social media solution for New York students

ACCOMPLISHMENTS

HackNYU 2022

Feb 2022

- *Acquisite:* Developed web application to connect small businesses with onlooking investors hosted on GCP
- Utilized Bootstrap 5 and Flask to develop full-stack application with modern UI elements and CRUD database support

CISCO National Networking Challenge 2nd Place

May 2020

- National runner up in Airforce Association's Cyberpatriot CISCO networking challenge
- Utilized CISCO IOS to implement virtual private networks and network routes as well as local layer switchport security

TECHNICAL SKILLS

- **Programming Languages:** Python, C++, Java, Javascript, HTML/CSS, SQL, Bash
- **Software Technologies:** Unix Shell, Docker, AWS, Flask, NodeJS, Pytorch, Git, Kubernetes, NodeJS, ViteJS, Huggingface Transformers