# **Christopher Demirjian**

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## **EDUCATION**

Columbia University New York, NY

Master of Science, Computer Science: Machine Learning

Expected May 2025

• Relevant Coursework: Machine Learning, Design for Gen AI, Algorithms, Spoken Language Processing.

## Columbia University, Columbia College

New York, NY

Bachelor of Arts, Computer Science and Mathematics

May 2024

GPA: 3.71.

• Relevant Coursework: Data Structures and Algorithms, Systems Programming, Networks, Number Theory, Artificial Intelligence, Databases, NLP, Cryptography, Cloud Computing, UI Design, Robotics, Quantitative Finance.

#### **SKILLS**

**Programming Languages:** Fluent in Python, Java, C, PostgreSQL, TypeScript, HTML, Duck DB, R, P4. **Frameworks and Tools:** Proficient in TensorFlow, PyTorch, REST, Pandas, Flask, jQuery, React, FAST API. **Software:** Expertise in Linux, Object Oriented Programming, Git, AWS, GCP, Docker, Wireshark, Terraform.

## **WORK EXPERIENCE**

## **IBM Accelerate Program**

Armonk, NY

Software Development Intern

Jun 2022 - Aug 2022

- Learned front-end and back-end software fundamentals in 5 projects incorporating Python, JavaScript, React, versioning, application security, project management, GitHub, and software development lifecycle (SDLC).
- Refined both analytical and project management skills such as critical thinking, collaboration, communication, and Agile work method through brainstorming and coding in groups of 5 developers.
- Programmed in JavaScript, React, styling, security, and Cloud Native Development.
- Earned intermediate IBM Cybersecurity Fundamentals Digital Credentials: entailed fundamentals in offensive and defensive perspectives within cyber security, risk management and legal/ethical components of security.

#### UNDERGRADUATE PROJECTS

## **Graduate Level Course**

Sep 2023 - Dec 2023

- Led a team of 7 students to develop a cloud-based application used by NFL fans.
- Deployed cloud application to provide end users with 3 features: real-time end statistical player/coach information lookups, up-to-date player newsfeed from various microservices, and a user discussion forum.
- Leveraged Google Cloud and AWS technologies to host application, including Elastic Compute Cloud (EC2), GCP App Engine, Docker, Cloud Databases (RDS, DynamoDB) and CI/CD pipeline.
- Engineered pub/sub-AWS Lambda function to notify discord server, IaaS Terraform script to automate deployment of AWS instances, and EC2 microservice with Fast API to allow for player lookup.

#### Undergraduate Research Assistant, Yale NLP Lab

May 2023 - Aug 2023

- Collaborated with 5 researchers to learn how to read, present and structure scientific research papers.
- Analyzed training and testing data sets from 25 Large Language Models using HuggingFace.
- Built Python Streamlit website with team to display results found in L2CEval project.

## Undergraduate Research Assistant, Columbia IRT Lab

Jan 2023 - Aug 2023

- Investigated under PhD advisor on P4 IoT Firewall Project, an intelligent firewall implemented in P4, capturing and manipulating packet headers to detect, divert and drop malicious traffic in real time.
- Utilized P4 programming language and Wireshark to test 10 devices and construct white-list only IoT firewall.
- Conducted comprehensive testing of 10 IoT devices, analyzed IoT network traffic of over 30k packets, and authored significant conclusions contributing to a research paper.

## LEADERSHIP AND CAMPUS INVOLVEMENT

## **Columbia Cyber Security Club**

New York, NY

General Body Member

Oct 2021 - Present

• Sharpened security skills through interactive labs and Capture the Flag hacking challenge events.