Christopher Lee

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EDUCATION

Columbia University in the City of New York *Sep 2020 - May 2024*
Bachelor of Arts — Computer Science Major | GPA: 3.86/4.00

- **Computer Science Coursework:** Data Structures & Algorithms (Java), Introduction to Databases (Python/SQL), Data-Driven Decision Modeling (Python), Machine Learning (Python), Natural Language Processing (Python), Geometric Data Analysis (Python), Competitive Programming (C++)
- **Mathematics Coursework:** Probability & Statistics, Probability Theory, Statistical Inference, Analysis of Algorithms I
- **Awards:** Dean's List (Fall 2020, Spring 2021, Fall 2021, Spring 2022, Fall 2022)
- **Languages & Technologies**: Python, C/C++, Java, SQL, Git, Pandas, NumPy, Scikit-learn, Pytorch, Tensorflow, Keras

EXPERIENCE

Capital One, Richmond, VA — *Incoming Software Engineer Intern* *Jun 2023 – Aug 2023*

Creative Machines Lab, New York, NY — *Research Assistant* *Mar 2023 – Present*

- Led a research project on the prediction of arbitrary 3-dimensional geometric structures advised by Professor Hod Lipson
- Developed a neural network model to predict the SDF of a given coordinate for partially-observed object meshes
- Used SDF predictions to generate meshes that fills in for the unobserved areas of partially-observed object meshes

Columbia University, New York, NY — *Teaching Assistant for COMS W4701* *Jan 2023 – May 2023*

- Graded homework and held weekly office hours for a graduate-level Artificial Intelligence course for over 300 students

Columbia University, New York, NY — *Teaching Assistant for COMS W3203* *Jan 2022 – Dec 2022*

- Graded homework and held weekly office hours for a Discrete Mathematics course for over 290 students
- Led recitations for over 50 students to review topics such as posets, relations, and probability & statistics
- Created a coding assignment on modeling all possible outcomes of a Scrabble game using posets in Python

WanMile Education & Legal Group, Diamond Bar, CA — *Tutor* *Jul 2020 – Aug 2021*

- Worked with 6 students in learning and developing their understanding of high school STEM subjects including AP Computer Science A and AP Computer Science Principles
- Held weekly lessons and review sessions on course materials as well as guided students through course assignments

PROJECTS

Incremental Generation of Differentially Private Datasets — Github *Feb 2023*

- Worked in a group of 4 on creating differentially private datasets for taxicab information for CU Data Science Society hackathon
- Implemented GUPT, a Laplacian sampling-based method to improve the privacy-accuracy tradeoff of other similar methods
- Demonstrated GUPT's superiority over Laplacian sampling in accuracy achieved and similarity to the original dataset

Improving MTA Rider Experience via Regression — Github *Dec 2022*

- Ran Weibull regressions on MTA datasets to find correlation between data covariates and additional wait times experienced
- Ran negative binomial regressions on datasets to find correlation between data covariates and distances between subway failures
- Used regression information to optimize MTA revenue based on the number of passengers and covariates present in subway data

ACTIVITIES

CU TCS Deep Learning Theory Seminar, New York, NY — *Speaker* *Jan 2023 – May 2023*

- Participated weekly in a deep learning seminar led by PhD candidate Clayton Sanford
- Hosted and led a discussion on the derivation and theory behind neural tangent kernels

CU Music Performance Program, New York, NY — *Clarinetist* *Sep 2021 - May 2022*

- Led discussions on music interpretation and practiced ensemble coordination in weekly rehearsals coached by Allen Blustine on chamber music in a clarinet, violin, and piano trio ensemble
- Performed Béla Bartók's *Contrasts* and Paul Schoenfield's *Trio for Clarinet, Violin, and Piano* for 50+ people

INTERESTS

Languages: English, Mandarin Chinese, Conversational French, Beginner Japanese
Interests: Orchestral/Chamber Music, Weightlifting, Foreign Languages