# MAXIMILIAN COMFERE

New York, NY | (507) 250-6563 | mkc2182@columbia.edu

## EDUCATION

**Columbia University, Fu School of Engineering and Applied Science**                    New York, NY
Bachelor of Science, Computer Engineering                    Expected May 2026
Relevant Coursework: Mathematics of Machine Learning, Advanced Programming, Data Structures, Natural Language Processing, Signals and Systems, Introduction to JavaScript and Web Technologies

**Century High School**                    Rochester, MN
Diploma, Honors Society, National African American Recognition Scholar                    May 2022

## PROFESSIONAL EXPERIENCE

**Columbia's Mortimer B. Zuckerman Mind, Brain and Behavior Institute**                    New York, NY
*Undergraduate Software Lab Assistant*                    September 2023 – August 2024
- Implemented MoSeq, a motion sequence machine learning model, to observe and then map behavioral characteristics of Naked Mole Rats to specific castes within the colony.
- Designed large-scale transition matrices using Python to create visual representations of behavioral sequences.
- Modeled a tunnel game in Python to efficiently pair all Naked Mole Rats against each other to determine a dominance hierarchy for the colony.

**Center for Digital Health, Mayo Clinic**                    Rochester, MN
*Software Engineer Intern*                    June 2023 – August 2023
- Automated test data creation for myelodysplastic risk assessment model using Python and the integration of ChatGPT's API.
- Developed a comprehensive team site to access existing workflows and files using JavaScript, CSS, HTML and React.
- Designed and tested front-end mechanics for myelodysplastic risk calculator web application.
- The risk calculator implemented a machine learning model that assessed medical record data and accessed real time laboratory results using SQL streams to predict patient outcomes and guide health provider decisions.

## EXTRACURRICULARS

**Columbia University**                    New York, NY
*Intercollegiate Athletics: Varsity Track and Field*                    September 2022 - present
- *NCAA USTFCCCA Division 1 All-Academic Team 2023*

## SKILLS & INTERESTS

**Computer:** Java, C/C++, JavaScript, Swift, Python, React, Node, pandas, MoSeq, Swift, SQL, HTML, CSS, LTspice, PyTorch, MATLAB
**Language***:* English (native), German (advanced)
**Interests:** Creative Writing, Premier League Soccer, Cycling, Sprinting, Backpacking, Cosmology