

# SEONGYEON (YEONIE) HEO

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## EDUCATION

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### New York University Abu Dhabi

Bachelor of Science in Computer Science

GPA 3.76 / 4.0

*Related Coursework:* Applied Machine Learning, Algorithms, Linear Algebra, Multivariable Calculus, Data Structures

## EXPERIENCE

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### TikTok (ByteDance), Dubai, UAE

Data Analyst

August 2024 - Present

- Led the development of a high-precision statistical forecasting model (95% accuracy) for catering attendance, cutting food waste by 35% and driving annual cost savings of over \$XM.
- Identified and mitigated financial inefficiencies caused by policy abuse, optimizing operational costs while maintaining employee satisfaction.
- Partnered with cross-functional teams to produce and validate comprehensive cost reports on global workplace amenities (catering, real estate, travel), improving data integrity through streamlined data management.

Product Analyst Intern

June 2023 - June 2024

- Automated the identification of new business opportunities through an RFM-based clustering framework, reducing manual analysis by 80%.
- Transformed CPG client success tracking from manual processes into a real-time, automated dashboard, enhancing operational efficiency.
- Employed advanced machine learning models to deliver high-granularity forecasts of TikTok's 2024 revenue, closely aligning with strategic business planning.

### New York University, Abu Dhabi, UAE

Machine Learning Researcher

April 2023 - September 2023

- Engineered a smart healthcare solution to enhance care for Alzheimer's patients using generative AI from scratch, integrating large language models, voice synthesizer, and animated avatars.
- Authored and published a research paper at ML4H 2023 Research Conference, detailing the application of generative AI in healthcare and received a \$1,000 grant for research excellence.

### New York University, Abu Dhabi, UAE

Computational Social Science Researcher

April 2023 - September 2023

- Extracted and classified 2,000+ movie scripts, details on success performance, and production crew lists from 9 movie websites in Python, preprocessing the data for sophisticated time-series analysis.
- Applied topic modeling techniques to explore how movie content has evolved over time and its indirect effects on Oscar-winning probabilities.

## PROJECTS

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[MemoryCompanion](#): machine learning research paper that implements generative AI companion for targeted patients

[Political Preference Prediction Model](#): machine learning research paper that predicts political views of tweets

[Oscar-Winning Film Trend Overview](#): text-data analysis on shifts of Oscar-winning films content over time

## EXTRACURRICULAR ACTIVITIES

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3rd Place, Quantum International Hackathon for Social Good

2024 April

Computer Science Research Mentorship Program Scholar at Google

February 2023 - May 2023

Korean-English Interpreter at Presidential Security Office, Embassy of South Korea

Occasionally in 2022 - 2024

## SKILLS

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**Programming Languages:** Python, SQL, Hive, Spark, R, TensorFlow, CSS/HTML

**Tools:** Tableau, MS-Excel, Google Analytics