

SIMON AYTES

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EDUCATION

Korea Advanced Institute of Science and Technology (KAIST)

M.S. in Artificial Intelligence.

Seoul, South Korea

Class of 2026

Lehman College, City University of New York

B.S. in Computer Science, Minor in Data Science. Overall GPA 3.97/4.00.

New York, NY

Class of 2022

PROFESSIONAL EXPERIENCE

Penta

Data Scientist

New York, NY

September 2021 – February 2024

- Consulted with clients across industries undergoing digital and cultural transformations, addressing their concerns through data-driven approaches to problem-solving.
- Optimized data gathering processing pipeline; improved end-to-end runtime by 900%.
- Developed methods for the gathering, ingestion, and analysis of qualitative and quantitative data.
- Increased efficiency of core business functions by over 70% by refactoring existing code bases.

Wall Street Journal

Data Science Fellow

New York, NY

August – December 2021

- Designed a machine learning model to predict an article's unique page-views based on its headline.
- Utilized structured data from WSJ's databases to train the model, tested on real-time data.
- Wrote and optimized SQL queries to segment data from existing databases, optimizing data pipeline.

NASA Langley Research Center

AR/VR Solutions Development Intern (EnDEVr)

Hampton, VA

August 2020 - August 2021

- Designed and developed an applied data science VR application using Unity3D and Unreal Engine.
- Main features include graphical pipeline capabilities and data processing/analysis tools.
- Conducted stakeholder interviews to inform a user-centric development process.

NASA Langley Research Center

AR/VR Solutions Development Intern (EDS)

Hampton, VA

June - August 2020

- Conceptualized and developed a Virtual Reality prototype for data visualization and analysis.
- Research and implementation of VR-specific UI/UX concepts.
- Conducted feasibility assessments for the Engineering Design Studio (EDS) in order to outline possible VR applications that the EDS would be capable of producing with current assets.

Heat-map Visualization and Modeling Tool (HVMT) Development Intern *August - December 2019*

- Lead the design, development, and launch of the Heat-map Visualization and Modeling Tool (HVMT) – a Virtual Reality heat-map visualization tool – for the Engineering Design Studio (EDS).
- Enabled user to visualize and analyze 3-Dimensional heat-map data in Virtual Reality.

RESEARCH EXPERIENCE

York College, City University of New York

Researcher, Data Science

New York, NY

May 2022 - October 2022

- Consulted the project's principal investigators to develop a plan for the automated scraping and extraction of data pertaining to indigent burials across the United States at both state and local levels.
- Assessed the feasibility of creating a database of this data for researchers looking to discern the effect of the ongoing COVID-19 pandemic and the opioid crisis on indigent burials countrywide.
- Conducted analyses to support the creation of an abstract for the Population Association of America (PAA) 2022 Conference.

Columbia University

Project Owner, Public Interest Technology Data Science Corps

New York, NY

May 2022 - August 2022

- Managed a team of five undergraduate student researchers, providing mentor-ship and project ownership.
- Designed a project structure for the undergraduate research team to aid in research efforts; Coordinated semi-weekly project status meetings with the student researchers to align on next steps and conduct code reviews.

Lehman College, City University of New York

Data Science Research Fellow

New York, NY

June - August 2021

- Teamed with 3 interns to automate the process of data extraction from PDF files using optical character recognition (OCR) with a minimum of 90% accuracy, aimed at addressing equity data accessibility.
- Constructed a data set representing features derived from public health profiles of New York City's 59 districts as identified by project stakeholders.

PUBLICATIONS & POSTER PRESENTATIONS

Publications

Sarah M. Lehman, Newton H. Campbell, **Simon A. Aytes**, Mitchell Kirshner, and Anthony Arviola. "EnDEV: An Environment for Data Engineering in Virtual Reality". 2021. (*Submitted, ISMAR*).

Poster Presentations

Simon A. Aytes. Heat-map Visualization and Modeling Tool (HVMT). Poster presented at: NASA Langley Research Center Transformation Showcase. 2019 Nov 15. Hampton, VA.

AWARDS & HONORS

Presidential Scholar Award

Lehman College, City University of New York

Multiple Semesters

- Awarded to full-time students who obtained over a 3.9 overall GPA in a semester.
- Recipient in the following semesters: Fall 2021, Spring 2022, Fall 2022 (*anticipated*).

2022 HSI Battle of the Brains

Participant, Top 5 Finalist

Austin, TX

March 2022

- The competition involved a 24-hour "hackathon" where participating teams were tasked with creating a product that could address the corporate sponsor's problem statement.
- Devised a business plan, pitch deck, and minimum viable product (MVP) of the proposed app.

Dean's List

University of Michigan - Dearborn

May 2021

- Awarded to full-time students who obtained over a 3.5 overall GPA in a semester.

CLUBS & ACTIVITIES

Lehman College Data Science Association (DSA)

President, Founder

New York, NY

January 2022 – Present

- Established the first data science club at CUNY Lehman College, securing an initial membership base of 28 students and faculty prior to registration.
- Moderated the Data Science Association's official website and slack channel, providing helpful resources to students for further learning and skill development.

Public Interest Technology Data Science Corps Summer 2022 Program

Technical Bootcamp Lecturer

New York, NY

April – August 2022

- Conceptualized lecture aimed at familiarizing program participants with the importance and process of data storytelling; discussed various methodologies used in-industry.
- Lectured at a joint bootcamp for 20+ undergraduate students from CUNY Lehman College and Columbia University.

Circle K International

Member

Dearborn, MI

September 2018 – May 2021

- Participated in community outreach events including food drives and enrichment activities.

SKILLS & INTERESTS

Computer Languages

Python, R, SQL, C#, C++, Git

Python Libraries

SciKit-Learn, Pandas, NumPy, SciPy, Tensorflow

Software

Jupyter Notebooks, Excel, Google Workspace, RStudio

Spoken Languages

English (Native); German (Proficient); Chinese (Limited Proficiency)