

# ANDREW LEE

151 Sterling Manor Dr., Williamsburg, VA 23185 | [lee.andrew.jooyoung@gmail.com](mailto:lee.andrew.jooyoung@gmail.com) | +1 (757) 940-8688 | [leeandrew.github.io](https://leeandrew.github.io)

## EDUCATION

**William & Mary**, Williamsburg, VA

Aug 2019 – May 2025 (expected)

*Planning on pursuing a master's degree starting on Fall 2025*

- Bachelor of Science in Mathematics, Bachelor of Science in Data Science
- Cumulative GPA: 3.98/4.00; Honors: Dean's List
- Relevant Coursework: Neural Networks & Deep Learning, Statistical Learning, Mathematical Statistics, Probability Theory, Regression Analysis, Survival Analysis, Real Analysis I & II, Linear Algebra, Databases, Data Visualization

## RESEARCH EXPERIENCE

**Institute for Integrative Conservation**, Williamsburg, VA

Jan 2024 – present

*Funded Through IIC Summer Research Award (\$4,000)*

- Worked with partners in U.S. Department of the Interior agencies to leverage deep learning object detection methods and thermal imagery to efficiently count migratory birds in aerial images of the Platte River of Nebraska.
- Produced original research using computer vision techniques on large-scale thermal imageries; policymakers plan to use results as an input to improve hunting regulations.
- Led one poster presentation at an undergraduate research symposium, and regularly presented findings to wildlife biologists and ecologists

**William & Mary, Department of Mathematics**, Williamsburg, VA

June 2024 – present

- Supervised by *Prof. Sun* of William & Mary department of mathematics, collaborated with *Tanujit Dey* of Harvard Medical School.
- Carried out data analysis and collection to better understand exposures and behavioral responses to wildfire smoke by forecasting Google search rates of ten public health associated keywords.
- Researched and implemented regression for longitudinal data via mixed models (LMM) and generalized estimating equations (GEE) with varying correlation structures.

**William & Mary, Department of Mathematics**, Williamsburg, VA

May 2023 – Aug 2023

*Funded Through Virginia Space Grant Consortium (\$4,000)*

- Supervised by *Prof. Hunt* of William & Mary department of mathematics.
- Designed and trained a deep neural network architecture for predicting the Shock Train Leading Edge (STLE) of hypersonic vehicles – a direct interest of the NASA Langley Research Center.
- Experimented numerous statistical learning methods for regression including multiple linear regression, random forest regressor, and support vector machines.

## PROFESSIONAL EXPERIENCE

**Council on International Educational Exchange (CIEE)**, Seoul, South Korea

May 2022 – Aug 2022

*Program Assistant*

- Built study abroad programs with an emphasis on experiential learning for U.S. high school students and university students traveling to South Korea.
- Preserved and updated 5+ independent program itineraries along with 400+ students' information utilizing Microsoft Office.
- Assisted communications between on-site Academic Coordinators and U.S. based CIEE staff.

**Republic of Korea Army**, 52<sup>nd</sup> Infantry Division, Gwangmyeong, South Korea

Sep 2020 – Mar 2022

*Sergeant*

- Trained, disciplined and taught different military skills; served as a squad leader for a team of seven.
- Applied principles of accounting to report financial statements monthly and responsible for creation of physical copies.
- Worked detached at Incheon International Airport as a translator during the COVID-19 pandemic to increase the efficiency of airport traffic.

## RESEARCH PUBLICATIONS

1. Pickens, B., Lee, A., Hunt, G., Luz-Ricca, E., Wilkerson, G., Pearse, A., Garoutte, E., Rose, R., Ostrom, B., Caven, A., & Koneff, M. (draft in progress). Applying Artificial Intelligence to Monitor the Mid-Continent Population of Sandhill Crane (*Antigone canadensis*) at their Critical Stopover in the Platte River Valley

## TECHNICAL SKILLS AND INTERESTS

**Technical Skills:** Python, R, SQL, Tableau, Linux/Bash, LaTeX

**Languages:** English (native), Korean (native), Japanese (elementary)

**Interests:** Education, Photography, Investment, Cinema, Classical/Electric Guitar, Baseball