

# Jae-Hyun (Mason) Lee

858-306-4034 | [jhmasonlee@gmail.com](mailto:jhmasonlee@gmail.com) | [linkedin.com/mason](https://www.linkedin.com/in/mason) | [masonlee.com](https://masonlee.com)

## EDUCATION

### Brown University

*Sc.B in Computer Science - Applied Mathematics, GPA: 3.83*

Providence, RI

*Aug. 2021 – May 2025*

**Relevant Coursework:** Data Structures & Algorithms, Machine Learning, Computational Linguistics, Computer Systems, Discrete Structures and Probability, Computational Statistics, Operations Research

## EXPERIENCE

### Machine Learning Undergraduate Teaching Assistant (UTA)

*Brown University*

Jan. 2024 – May 2024

*Providence, RI*

- Selected as one of 20+ UTAs out of 200+ applications (10% acceptance rate) for CS1420: Machine Learning in Spring 2024

### Finance Leadership Development Program Intern

*Verizon*

June 2023 – August 2023

*Basking Ridge, NJ*

- Leveraged Python and SQL queries to extract, transform, and automate complex data processes across 4 diverse databases, enhancing data accuracy and operational efficiency
- Engineered intuitive and insightful reports using GUI tool Qlik, translating funding data from device manufacturers - saved 600 hours per year across all teams involved

### Applied Mathematics Teaching Assistant

*Brown University*

Sep. 2022 – Present

*Providence, RI*

- Created solution guides for homework including programming assignments in Python and held weekly office hours for 250+ students for APMA0350: Applied Ordinary Differential Equations and APMA0360: Applied Partial Differential Equations I

### Software Developer

*Brown University, SmartCane Project*

Sep. 2022 – Jan. 2023

*Providence, RI*

- Enhanced data retrieval and presentation in an Android app by crafting a Java-based CSV parsing script to ensure accurate formatting
- Gathered requirements/specifications through user studies/interviews and documented project progress for Brown DesignXHealth

## PROJECTS

### Personal Website | [masonlee-jhmlee.vercel.app/](https://masonlee-jhmlee.vercel.app/)

- Designed and executed design from scratch to create a React.js-based website - see more projects here

### Neural Machine Translation: Language to Logic | *Python, PyTorch, NumPy*

- Implemented a neural machine translation model using a Transformer encoder-decoder architecture with attention to translate natural language to machine-readable logical form expression
- Successfully developed the full Seq2Seq model with attention to achieve up to 72% exact match accuracy and 89% per-token accuracy on testing data

### Caching I/O | *C*

- Developed and enhanced a caching system for reading/writing files, running with an efficiency to within 5x of C's standard library

### Wiki Search Engine | *Python*

- Developed custom search engine with Python to index and query XML wikis, enabling users to search and explore XML wikis interactively
- Implemented TF/IDF term weighting and Google's PageRank algorithm to return optimized results

## ACTIVITIES & LEADERSHIP

### Applied Math Dept. Undergraduate Group | *Website Manager*

*Meiklejohn Peer Advisor*

*Brown Pre-College | Resident Assistant*

Jan. 2023 – Present

August 2023 – Present

June. 2022 - Aug. 2022

## TECHNICAL SKILLS

**Languages:** Python, Java, C, C++, JavaScript, SQL, LaTeX, HTML/CSS, MATLAB

**Frameworks/Tools:** React, Node.js, Express, WordPress

**Developer Tools:** Git, Mongoose, Android SDK

**Libraries:** PyTorch, Scikit-Learn, NumPy, Pandas, spaCy