

# Kevin Esslinger

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## Relevant Experience:

### **Northeastern University**

Boston, MA

#### *Research Assistant*

September 2020 - Present

- Created a novel neural network architecture using transformers as history encoders in reinforcement learning to solve partially observable markov decision processes.
- Utilized high-performance cluster and slurm to conduct experiments in parallel to optimize research workflow and run 80x more tests in less computation time.
- Presented and discussed research ideas in weekly reinforcement learning reading group meetings to generate collaborations and future research projects

### **Amazon.com, Inc.**

Seattle, WA

#### *Software Development Engineer Intern*

May 2019 - August 2019

- Designed, owned, and implemented a native AWS service to validate revenue reports for Kindle publishers
- Developed Java interface to allow other teams to incorporate my AWS service into their software
- Collaborated with senior management to leverage my project for multi-team operation

## Education:

**Northeastern University**, Boston, MA, USA December 2022 Master of Science in Computer Science - Advisors: Christopher Amato and Robert Platt **GPA: 3.89/4.0**

**Temple University**, Philadelphia, PA, USA May 2020 Bachelor of Science in Computer Science and Mathematics with Data Science minor **GPA: 3.94/4.0, Summa Cum Laude**

## Open-Source Projects:

### Bot-Be-Named (Python, PostgreSQL)

- Led a small team of python developers creating a custom Discord bot with multiple functionalities
- Enabled custom commands for creating and editing Google Sheets directly from Discord
- Incorporated feedback from more than 200 active users to heighten the user experience

### Pottamon.com (JavaScript, React)

- Launched single page application incorporating custom animations and original interactive games
- Collaborated with artists and game designers to integrate art and minigames into the website
- Hosted the website as part of a month-long competition for a small online community

## Publications and Presentations:

- Deep Transformer Q-Networks for Partially Observable Reinforcement Learning. **Kevin Esslinger**, Robert Platt, and Christopher Amato. Under review at NeurIPS 2022 in New Orleans, LA, USA
- Aging and an Immune Challenge Interact to Potentiate Activation of Hippocampal Microglia in a Rodent Model with Features of Delirium. Nikkita Salla, **Kevin Esslinger**, Leah Deflitch, Naoto Tanaka, and Susan Patterson. Presented at Neuroscience 2018 in San Diego, CA, USA
- Common Lisp Jupyter Widgets in CANDO: Enhancing the CL-Jupyter Experience. **Kevin Esslinger**, Alexander Wood, and Christian Schafmeister. Presented at the European Lisp Symposium 2018 in Malaga, Spain

## Skills:

**Programming Languages:** Python, Java, JavaScript, C/C++

**Proficient Technologies:** Pytorch, Tensorflow, Keras, Numpy, Pandas, PostgreSQL

**Tools:** Weights & Biases, Tensorboard, Hugging Face, TravisCI, AWS, Heroku