

KOYENA PAL

Northeastern University ◇ Boston, MA 02115
(401) · 226 · 7477 ◇ pal.k@northeastern.edu ◇ koyenapal.github.io

EDUCATION

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| Northeastern University <i>Doctor of Philosophy, Computer Science</i> - GPA: 4.0/4.0 - Advisor: Dr. David Bau - Research Area: Interpretable AI | 2022 – 2027 |
| Brown University <i>Master of Science, Computer Science</i> - GPA: 4.0/4.0 - Thesis: Summarization and Generation of Discharge Summary Medical Reports - Thesis Advisor: Dr. Carsten Eickhoff | 2021 – 2022 |
| Brown University <i>Bachelor of Science, Computer Science, Honors</i> - GPA: 3.8/4.0 - Thesis: The Effect of Multi-Document Summarizations on User SERP Experience - Thesis Advisor: Dr. Carsten Eickhoff - Concentration Advisor: Dr. Ugur Cetintemel | 2017 – 2021 |

INDUSTRY EXPERIENCE

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| Akamai Technologies <i>Information Security Intern</i> | Jan 2022 - May 2022 Cambridge, MA |
| · Created text summarization and recommender systems for a threat-intelligence dashboard | |
| Akamai Technologies <i>Information Security Intern</i> | May 2020 - August 2020 Cambridge, MA |
| · Designed and deployed UI features to achieve consistent language interpretation in Technical Risk Illuminator, a tool built to support executive decisions. | |
| · Conceptualized and modeled an NLP-based multiple-tag generator to identify key terms and types of incidents from cyber-incident reports. | |
| Akamai Technologies <i>Information Security Intern</i> | May 2019 - August 2019 Cambridge, MA |
| · Optimized the yearly audit process duration by building a systems register, which generates answers that business units require to show that they are PCI Compliant. | |
| · Revamped the PCI Gap Analysis Template to streamline the process of products entering the PCI Compliance program for the first time. | |
| Brown University <i>Information Security Analyst Intern</i> | May 2018 - July 2018 Providence, RI |
| · Substantially improved copyright ticketing process automation through network expansion in support of internal IP address, MAC address, and public IP username identification. | |

RESEARCH EXPERIENCE

Northeastern Interpretable AI Lab

PhD Student Researcher

Sept 2022 - Present

Boston, MA

- AI + HCI: Building visualizing tools to understand and interpret large language models like GPT.

Brown AI Lab for Biomedical Informatics

Student Researcher

Sept 2019 - Present

Providence, RI

- AI + Healthcare: Developed a patient-centric literature summarization mechanism by implementing NLP models on biomedical texts.
- AI + HCI: Conducted user study on the effect of multi-document summarizations on User Search Results Page (SERP) experience.

iTrust Centre at Singapore University of Technology and Design

Research Intern

April 2016 - Jan 2017

Singapore

- AI + Cyber Security: Proposed a novel method to detect cyber-attacks on a Cyber-Physical System.

HONORS AND AWARDS

Brown CS Scholarship for Richard Tapia Conference

2021

Brown University Undergraduate Honors Award

2021

Brown Undergraduate Teaching Assistant-ship

2019

Top 3 Best Student Paper Award @ IEEE 18th HASE Conference

2017

PUBLICATIONS

1. K. Pal, S. Adepu and J. Goh, "Effectiveness of Association Rules Mining for Invariants Generation in Cyber-Physical Systems," *2017 IEEE 18th International Symposium on High Assurance Systems Engineering (HASE)*, 2017, pp. 124-127, doi: 10.1109/HASE.2017.21.

TEACHING AND RESEARCH MENTORSHIP

Northeastern University

Graduate TA

Sept 2022 - Dec 2022

Boston, MA

- CSCI 7150: Deep Learning, with Dr. David Bau (Fall 2022)

Brown University

*Teaching Assistant (TA) and Head TA**

Dec 2018 - Dec 2020

Providence, RI

- CSCI 1470* and 2470*: Deep Learning, with Dr. Daniel Ritchie (Fall 2020)
- CSCI 1010: Theory of Computation, with Dr. Lorenzo De Stefani (Fall 2019)
- CSCI 0220: Introduction to Discrete Structures and Probability, with Dr. Caroline J Klivans (Spring 2019)
- CSCI 0170: Computer Science – An Integrated Introduction, with Dr. Philip N. Klein (Fall 2018)

Inspirit AI

Instructor

July 2020 - August 2020, Dec 2021

Online

- Conducted online lectures and coding assignments covering concepts such as machine learning fundamentals, NLP, computer vision, and ethics in AI.
- Guided global group of students through AI projects such as Anti-Refugee Semantic Analysis.

SKILLS

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| Programming Languages: | Python, Ruby, SQL, Java, C, C++, Scala, Go, DrRacket, OCaml, Latex, React, MATLAB, Javascript, HTML, CSS |
| Software, OS & Tools: | GitHub, BitBucket, Heroku, MongoDB, MySQL, REST API, JIRA, Pandas, Numpy, Gensim, scikit-learn, Google Apps, MS Office Suite, Google Apps, Qt Creator, OS X, Linux |
| Languages: | English, French, Hindi, Bengali |

RELEVANT COURSES

Machine Learning, Deep Learning, User Interface and User Experience, CS for Social Good, Design and Analysis of Algorithms, Software Security, Computer Systems Security, Privacy-Conscious Computer Systems

SERVICE

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| Reviewer @ Northeastern University's CS PhD Admissions Committee | 2022 |
| Mentor @ Brown University's Women Launch Pad | 2022-Present |
| Mentor @ Brown University's Women in Computer Science | 2018-2022 |

ACTIVITIES AND SOCIETIES

Northeastern's CS PhD Group, Brown's DAEBAK K-Pop Dance Association, Bengali Students' club, Hack@Brown, Peer mentoring, Playing Tennis, Playing Piano, Traveling