

KOYENA PAL

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

EDUCATION

Northeastern University 2022 – 2027

Doctor of Philosophy, Computer Science

- GPA: 4.0/4.0
- Advisor: Dr. David Bau
- Research Areas: Interpretable AI, NLP, Cybersecurity

Brown University 2021 – 2022

Master of Science, Computer Science

- GPA: 4.0/4.0
- Thesis: Summarization and Generation of Discharge Summary Medical Reports
- Thesis Advisor: Dr. Carsten Eickhoff

Brown University 2017 – 2021

Bachelor of Science, Computer Science, Honors

- 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

INDUSTRY EXPERIENCE

Akamai Technologies Jan 2022 - May 2022
Information Security Intern Cambridge, MA

- Created text summarization and recommender systems for a threat-intelligence dashboard

Akamai Technologies May 2020 - August 2020
Information Security Intern 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 May 2019 - August 2019
Information Security Intern 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 May 2018 - July 2018
Information Security Analyst Intern 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

Northeastern Graduate Fellowship

2022-2027

Northeastern Startup Fund

2022

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

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

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