# Sadie L. Allen

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## EDUCATION

**Boston University College of Engineering and College of Arts and Sciences** **Boston, MA**
B.S. in Computer Engineering, B.A. in Pure and Applied Mathematics (dual degree program) **May 2021**
GPA: 3.92/4.00 (Dean's list, all semesters)
**Boston University College of Engineering** **Boston, MA**
M.S. in Computer Engineering **May 2024**
GPA: 3.79/4.00

## RELEVANT COURSEWORK

Deep learning, advanced optimization theory and methods, online learning, learning from data, statistical learning theory, advanced data structures, stochastic processes, software engineering, reinforcement learning.

## RELEVANT EXPERIENCE

**Danfoss Power Solutions; Innovation Accelerator,** Data Science Intern, Cambridge, MA **June 2021 - December 2021**
- Developed models for data-driven sales opportunity analytics including a binary classification model to predict likelihood of closing a sale, a Cox PH model to estimate time-to-close, and a partial dependency plot-based feature importance to recommend specific actions for sales managers

**IBM; TJ Watson Research Center,** Research Intern, Yorktown Heights, NY **Summer 2020**
- Conducted fault injection experiments on benchmark applications to gain familiarity with fault diagnosis in distributed systems and co-designed **Tritium**, a cross-layer analytics system for diagnosing faults in microservice applications

**Boston University; PEACLab,** Undergraduate Researcher, Boston, MA **Spring 2019 – Spring 2021**
- Helped develop **Praxi**, a tool designed to aid cloud administrators to monitor software present on their systems; Praxi employs a machine learning model to identify applications based on file system changes
- Converted research code to industry-ready modules, coding in Python on Linux virtual machines
- Designed hands-on cloud security software tutorial, extended Praxi's capabilities to version detection

## OTHER EXPERIENCE

**Boston University Department of Electrical and Computer Engineering**, Boston MA **August 2019 – May 2024**
Teaching Assistant for EC330 Applied Algorithms, EC414 Introduction to Machine Learning, EC440 Operating Systems

## PROJECTS

- **Spotimy** website enabling users to filter their playlist according to audio features from the Spotify API
- **ContextCheck** website with BERT-based NLP algorithm fine-tuned to detect bias in news articles

## LEADERSHIP, HONORS & AWARDS

**Vice President,** Tau Beta Pi Engineering Honor Society, Eta Chapter **May 2020 - May 2021**
**Music Director,** Chordially Yours **–** A Cappella group at Boston University **January 2020 - May 2021**
BU Claire Boothe Luce Fellowship; Michael F. Ruane Award for Excellence in Senior Capstone Design; Senior Design Project Excellence Award; Honorable Mention: Computing Research Association's Outstanding Undergraduate Researcher Award; BU Richard D. Cohen Scholarship; BU's Lutchen Engineering Summer Fellowship.

## SKILLS

**Computer:** Python, Pytorch, Linux, Kubernetes, C, C++, Java, JavaScript, ReactJS, D3, Vega, R, ROS, GitHub, MATLAB

## PUBLICATIONS AND TALKS

- **Allen, Sadie** and Anirudh Mani. "Collaborative Songwriting and Production with Symbolic Generative AI." Lecture, Audio Developer Conference, November 14th, 2023, London, UK.
- **Allen, Sadie**, Mert Toslali, Srinivasan Parthasarathy, Fabio Oliveira, and Ayse K. Coskun. "Tritium: A Cross-layer Analytics System for Enhancing Microservice Rollouts in the Cloud." In Proceedings of the Seventh International Workshop on Container Technologies and Container Clouds, pp. 19-24. 2021.
- Byrne, Anthony, **Sadie L. Allen**, Shripad Nadgowda, and Ayse K. Coskun. "Praxi: cloud software discovery that learns from practice." In Proceedings of the 20th International Middleware Conference Demos and Posters, pp. 23-24. 2019.