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, Flask

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.