Annie Bryan

annieb22@mit.edu

anniebryan.github.io
github.com/anniebryan
linkedin.com/in/annie-bryan

EDUCATION

Massachusetts Institute of Technology (MIT)　　　　　　　　　　　**Sep 2018 — May 2022**
B.S. in Computer Science and Engineering　　　　　　　　　　　　　　*Cambridge, MA*
GPA: 4.9 / 5.0
Minors: Spanish, Statistics and Data Science
Courses: Software Construction, Algorithms and Data Structures, Artificial Intelligence, Machine Learning, Computation Structures, Linear Algebra, Differential Equations, Calculus, Probability and Random Variables

SKILLS

Python, Java, C++, Ruby, MATLAB, HTML, CSS, JavaScript, MySQL, Git, Perforce, Scrum, Kanban

EXPERIENCE

MIT Computer Science & Artificial Intelligence Lab (CSAIL)　　　　　**Sep 2020 — Present**
Undergraduate Research Assistant　　　　　　　　　　　　　　　　　　*Remote*
• Collaborating with Toyota to develop certified control, a new architecture for dependable self-driving cars
• Designing the controller and certifier as to exploit the cost gap between finding and checking a solution
• Leveraging techniques such as optical flow and object segmentation with LiDAR point clouds

MathWorks　　　　　　　　　　　　　　　　　　　　　　　　　　**May 2020 — Aug 2020**
Software Engineering Intern　　　　　　　　　　　　　　　　　　　　*Remote*
• Developed full-stack customer-facing web applications using Ruby on Rails and the MVC framework
• Drafted thorough documentation of each project's test plan, requirements, and functional/architectural design
• Generated UI wireframes for new workflows, presented designs to users, and integrated feedback

Universidad Politécnica de Madrid　　　　　　　　　　　　　　　　**Jun 2019 — Aug 2019**
Data Science Research Assistant　　　　　　　　　　　　　　　　　　*Madrid, Spain*
• Explored topics in graph theory with a focus on dynamic phone networks from Senegal using R and Python
• Constructed models around cleaned datasets and compared effectiveness of each model
• Evaluated correlational coefficients between properties including connectivity, transitivity, and reciprocity

MIT Department of Mechanical Engineering　　　　　　　　　　　　**Feb 2019 — May 2019**
Undergraduate Research Assistant　　　　　　　　　　　　　　　　　*Cambridge, MA*
• Developed machine learning tools with MATLAB and Python to predict and extend machine lifetime
• Constructed a neural network using stochastic gradient descent and principal component analysis

PROJECTS

COVID-19 Data Analysis　　　　　　　　　　　　　　　　　　　　**Apr 2020 — Aug 2020**
• Cleaned and explored the Johns Hopkins dataset of COVID-19 cases and deaths as an independent project
• Built models to analyze the effects of state-imposed stay-at-home policy on the rate of spread of the virus

Tempo　　　　　　　　　　　　　　　　　　　　　　　　　　　　**Mar 2020 — May 2020**
• Created a fitness device that plays a song matching a runner's speed and music preferences
• Implemented the back end in C++, Python, and SQL to calculate BPM and make requests to Spotify's API
• Developed a web UI that allows a user to login and view/edit their database of runs or song playlist
• Collaborated with 4 other MIT students, tracked weekly goals, and managed version control with Git

LEADERSHIP

MIT Women's Varsity Volleyball　　　　　　　　　　　　　　　　　**Aug 2018 — Present**
• Devote 20 hours/week, compete in matches during season, communicate strategy, and motivate teammates

IEEE Secretary　　　　　　　　　　　　　　　　　　　　　　　　**Sep 2020 — Present**
• Assist the president and VP with logistics, take diligent and organized minutes at all meetings
• Oversee other executive board members and manage annual budget of $30,000

MIT Committee on Curricula　　　　　　　　　　　　　　　　　　　**Sep 2020 — Present**
• Collaborate with faculty, staff, and other students to create, revise, or remove undergraduate subjects

MIT Wind Ensemble　　　　　　　　　　　　　　　　　　　　　　**Jan 2019 — Apr 2020**
• Played second chair clarinet, assisted the rest of the section, demonstrated preparation of music repertoire