

Annie Bryan

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EDUCATION

Massachusetts Institute of Technology (MIT)

B.Sc., Double major in Computer Science and Mathematical Economics; Minor in Spanish

Cambridge, MA

Expected May 2022

GPA: 4.9 / 5.0

Courses: Computer System Engineering, Software Studio, Software Construction, Computation Structures, Embedded Systems, Algorithms and Data Structures, Artificial Intelligence, Machine Learning, Linear Algebra, Differential Equations, Calculus, Probability and Random Variables, Real Analysis, Microeconomics, Macroeconomics, Econometric Data Science

TECHNICAL SKILLS

Languages: Python, Java, C/C++, Ruby, PHP/Hack, HTML, CSS, JavaScript, MATLAB, R, Julia, Stata

Frameworks/Libraries: Ruby on Rails, React, Vue, Express, Node, Bootstrap, Flask, TensorFlow, MySQL, SQLite, MongoDB

Tools: Git, Perforce, Mercurial, Docker, Visual Studio Code, PyCharm, IntelliJ, Eclipse

EXPERIENCE

Facebook

Summer 2021

Software Engineering Intern

Menlo Park, CA

- Integrated highly-requested features into an internal tool for curating and uploading authoritative news content
- Met with cross-functional stakeholders and team members to design full-stack software feature specifications

MathWorks

Summer 2020

Software Engineering Intern

Remote

- Developed full-stack customer-facing web applications; pushed code to production for >1000 users per day
- Drafted thorough documentation of each project's test plan, requirements, use cases, and functional/architectural design
- Generated UI wireframes for new workflows, presented designs to users, and integrated feedback

Universidad Politécnica de Madrid

Summer 2019

Data Science Research Assistant

Madrid, Spain

- Explored topics in graph theory with a focus on dynamic phone networks from Senegal
- Constructed models around cleaned datasets and compared effectiveness of each model
- Evaluated correlational coefficients between properties including connectivity, transitivity, and reciprocity

PROJECTS

Stance | *VueJS, ExpressJS, NodeJS*

Nov 2021 — Dec 2021

- Designed and implemented a web app for local political candidates to communicate with voters about relevant issues

Interlock for Self-Driving Cars | *Python, numpy, open3d, skimage, ffmpeg, CARLA*

Sep 2020 — May 2021

- Worked on a team to implement and test certified perception, an architecture to verify the safety of autonomous vehicles
- Implemented a path prediction algorithm to determine if the ego vehicle will collide with any objects in its path
- Tested the system in various driving scenarios using open-source autonomous driving simulation software

G Suite Dashboard | *JavaScript, Google AppScript*

Jan 2021

- Consulted with Tutoring Plus of Cambridge, a non-profit advancing educational equity through free tutoring services
- Built an application to automate the sending of reminder emails; integrated the app into their existing G Suite dashboard
- Reduced the time needed by nonprofit volunteers by 95%, potentially increasing the volunteer feedback form response rate

Tempo | *C++, Python, SQLite, Arduino*

Mar 2020 — May 2020

- Created a fitness device that matches a user's running speed and music preferences and plays a song to their device
- Implemented the back end to read step frequency, make HTTP requests to Spotify's REST API, and update user databases
- Developed a web UI that allows a user to login and perform CRUD operations on their stored runs or song playlists

Artificial Synapses for Large-Scale Neuromorphic Arrays | *MATLAB, Python, TensorFlow*

Feb 2019 — May 2019

- Developed machine learning tools to predict and extend machine lifetime

LEADERSHIP

VP of New Member Education for Phi Sigma Rho Sorority

Feb 2021 — Present

Computer Science Tutor for HKN Honor Society

Sep 2020 — Present

Undergraduate Representative on MIT Committee on Curricula

Sep 2020 — May 2021

MIT IEEE Exec Board Officer

Sep 2019 — May 2021

MIT Women's Varsity Volleyball

Aug 2018 — Nov 2021

- CoSIDA Academic All-America, CoSIDA Academic All-District, AVCA All-America, AVCA All-Region Team, NEWMAC Conference Tournament MVP, NCAA Regional All-Tournament Team, NEWVA All-New England Team