

Gati Aher

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EDUCATION

Olin College of Engineering

B.S. in Engineering: Computing (GPA: 4.0)

Coursework: Data Structures & Algorithms; Software Systems; Quantitative Engineering Analysis

Awards: 4-year, 50% Franklin W. Olin College Merit Scholarship, Mass. Space Grant Undergraduate Research Award (2021)

Skills: Python, R, SQL, Hadoop, Java, C, Linux/Bash, Git, AWS, React.js, Node.js, D3.js, HTML/CSS, Docker, Statistics, Linear Algebra, Discrete Mathematics, Machine Learning

Needham, MA

Dec 2023

WORK EXPERIENCE

Olin College Satellite + Spectrum Technology & Policy Group

Undergraduate Researcher (Machine Learning, Automation, & Data Science Lead)

- Model factors of 5G spectrum value with causal inference statistics and time-series analysis
- Automate process of document NER extraction to create more accessible FCC license database

Needham, MA

Fall 2021 – Present

Olin College Microbiology and Bioinformatics Research Lab

Undergraduate Researcher (Computational Math and Applied Statistics Lead)

- Collaborate with subject-matter experts to analyze and generate visuals for complex data (hierarchical, compositional, network, and time series datasets)
- Perform and interpret 2D Fourier analysis to measure periodic patterns in bacteria images

Needham, MA

Spring 2021 – Present

Indico Data Solutions

Intern (Research & Development Team, Machine Learning Team)

- Implemented ML-powered React.js UI for predicting, visualizing, and correcting text groupings
- Collaborated across teams and incorporated user-testing to inform rapid prototyping decisions
- Trained deep learning object-detection system to classify handwriting marks on documents
- Incorporated methods for alternate pre-training, multi-label tasks, and small object detection

Boston, MA

Summer 2021

The MITRE Corporation

Intern (ML Adversarial Attacks, DevOps, Natural Language Processing Division)

- Researching new methods to exploit vulnerabilities in machine learning-based systems
- Revived academic lab's research code for generating a paraphrase database, debugged it in a new environment, incorporated newer software packages, ran timing experiments to determine hardware needs and Hadoop configuration for running resource-intensive computation with 4x more data, modified code to run faster for our specific use-case.
- Applied logistic regression with feature engineering for classification on imbalanced dataset
- Built Docker and gRPC automated pipeline for evaluating vulnerabilities in AI models

Bedford, MA

Fall 2020, Summer 2019

Cumulus Digital Systems

Intern (Backend Team)

- Developed externally facing REST API for Cumulus's clients that manage their business data using generic ERP solutions and have a need to interface with Cumulus's system directly.
- Implemented REST API, Swagger, AWS CloudFront, and Serverless microservice
- Created AWS SNS, Lambda, and DynamoDB webhooks system to enable real-time data updates
- Improved API with response and request validation and automated documentation generation

Cambridge, MA

Summer 2020

PROJECTS

Full-Stack Web Application for Local Pool Management (<https://www.lagaannfl.com>)

Fall 2020

- Collaborated with clients to create custom football pool management platform for 40+ users
- Implemented scoring engine and React frontend to handle user actions, leaderboards, and admin controls
- Built with React, TypeScript, Auth0, Node.js, SQLite, PM2, Nginx. Deployed on AWS and DigitalOcean