

# Soham Saha

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## EDUCATION

### University of Illinois at Urbana-Champaign

Bachelor of Science in Computer Science, Minor in Statistics  
Dean's List (All Semesters)

May 2021  
GPA: 3.98/4.00

### Related Coursework:

Applied Machine Learning  
Artificial Intelligence

Basics of Statistical Learning  
Algorithms & Models of Computation

Database Systems  
Systems Programming

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## WORK EXPERIENCE

### Uber

Software Engineering Intern

Palo Alto, CA  
May 2020 – Present

### Capital One

Software Engineering Intern

Champaign, IL  
February 2020 – May 2020

- Improved hyperparameter tuning workflows for named-entity recognition by building a model generating tool in Keras that creates CNN, LSTM, Bi-LSTM models
- Optimized data storage and improved server-side performance of a document annotation application by re-designing the Postgres database schema and re-factoring the Flask backend

### Jensen Lab

Undergraduate AI Researcher

Urbana, IL  
September 2018 – May 2020

- Built a computer vision tool with OpenCV to detect viable bacterial colonies in microbiology imaging
- Analyzed images through adaptive thresholding and edge detection followed by object detection
- Deployed the tool as a Django web application for microbiologists to increase efficiency and accuracy of bacteria transformation experiments

### State Farm

Enterprise Technology Intern

Champaign, IL  
May 2019 – August 2019

- Developed an ASP.NET web application to serve as a management and registration platform for internal events
  - Designed the application's database on SQL Server and created an analytics dashboard that visualizes trends in attendance and hours serviced with D3.js
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## INDEPENDENT PROJECTS

### Presidential Election Tracker

April 2020 – May 2020

- Created a web application that visualizes trending topics and public sentiment towards presidential candidates
- Leveraged AWS Lambda & EC2 to create a data miner that scrapes, analyzes and stores candidate-related Tweets to a MongoDB database and utilized the Google Maps API and D3.js for front-end visualizations
- Trained a Logistic Regression model using GloVe word embeddings to analyze sentiment with 96.5% test accuracy

### Distracted Driving

June 2019

- Built a CNN in PyTorch to recognize distracted driving actions like texting, talking to a passenger, doing makeup, etc.
  - Integrated the network into an iOS application that allows a phone's camera to be a dashboard camera
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## LEADERSHIP

### Built by Girls | Corporate Chair

August 2019 – May 2020

- Coordinated with company recruiters to co-host networking and tech workshops that develop technical and professional skills for members to help improve gender diversity in the tech industry

### UIUC Computer Science Department | Course Assistant

January 2018 – December 2018

- CS 125 Intro to CS – Lead a section of 36 students through weekly Java programming labs and held office hours to reinforce concepts including object-oriented programming, data structures, algorithm design, and recursion
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## TECHNICAL SKILLS

**Languages:** Python, Java, C++, JavaScript, R, C#, C, and HTML/CSS

**Tools & Frameworks:** Data Science (Keras, PyTorch, TensorFlow, Scikit-learn, OpenCV) • Database (PostgreSQL, SQL Server, MongoDB) • Web (ASP.NET, Django, Flask, jQuery, D3.js) • Mobile (React Native)