

## EDUCATION

**Master of Science (MS), Computer Science**  
The Ohio State University, Columbus, OH

*Aug'19 - May'21 (Expected)*  
GPA: 3.95/4.0

**Bachelor of Engineering (BE), Electronics & Telecommunication**  
Indian Institute of Engineering Science and Technology, Shibpur, India

*Jul'11 - May'15*  
GPA: 8.79/10 (Rank: 7/45)

## SKILLS

**Languages** Python, Java, C++, C, SQL, JavaScript, HTML, CSS, PHP, Git, R, MATLAB  
**Frameworks** PyTorch, Spring, Kafka, Django, MongoDB, Redis, MySQL, AWS, Spark, Docker, JUnit, Node.js, React  
**Coursework** Algorithms, OS, Programming Languages, Distributed Computing, Data Mining, ML, NLP

## EXPERIENCE

**Software Engineer Intern, SafeAuto**

*May'20 - Aug'20*

- Relieved annual marketing budget of **\$0.8M** by designing a robust algorithm for optimizing paid search bidding [**Pandas**]
- Extracted impressions, clicks and conversions from clickstream data for marginal optimization of Google bids [**PySpark**]

**Software Development Engineer, HSBC Holdings plc**

*Dec'18 - Jul'19*

- Enabled relationship managers to drive healthy conversations by designing a **React app** *Customer360* supporting containerization to generate customer history and insights, leading to **80% less complaints** [**Docker, Redis**]
- Designed a **web app** to forecast and visualize different portfolio level credit card metrics to assist the partners in formulating upcoming offers while staying within the **20% risk threshold** [**Flask, React**]

**Software Developer, Mu Sigma**

*Aug'15 - Nov'18*

- Designed the backend for the financial services of a manufacturer by automating calculations based on a **micro-service** architecture for different departments and exposing corresponding **REST APIs** [**Spring Boot, Kafka, Hibernate**]
- Proactively designed a **web service** to automate the creation and refresh of a healthcare hierarchy (100k relations) in production to assist the shift to account based targeting [**Geocoding, REST API development**]
- Implemented automated test suites and provided tactical fixes to over **150 bugs** and handled **20k exceptions** in the hierarchy process flow [**JUnit, Mockito**]
- Designed an assortment planning tool to benchmark store performance of a retailer and later migrated the backend to a **Data Lake** based architecture [**Spark, Hadoop**] to support real-time data refreshes

## PROJECTS

**Detection of Glaucoma** 🌐

*Jul'20 - Aug'20*

- Designed an algorithm for the segmentation and morphological reconstruction of the optical cup and disc [**OpenCV**]
- Predicted the onset of Glaucoma with **79% accuracy** on Drishti dataset by comparing cup-to-disc ratio values

**Math Word Problem Solver** 🌐

*Oct'19 - Dec'19*

- Proposed and developed an algorithm to solve mathematical equations from web-scraped word problems (Yahoo answers)
- Outperformed SOTA by 18%** by matching equations using sequence trees and Bi-LSTM Recursive NN [**PyTorch**]

**Plagiarism Detector** 🌐

*Oct'19 - Nov'19*

- Generated signature sets using min hashing technique to bucket similar documents structures together [**NLTK, SciPy**]
- The signatures **reduced comparisons by 98%** over baseline, resulting in real-time detection of plagiarised content

**Negative Comment Classification** 🌐

*Aug'19 - Sep'19*

- Classified movie reviews & comments from IMDB, Amazon & Yelp as positive, negative and neutral with **97% accuracy**
- Designed deep neural networks (CNN and FFNN) using 50d GloVe embeddings [**TensorFlow, scikit-learn**]

**Pinstagram**

*Jan'19 - Apr'19*

- Built and deployed an android app that allows users to buy & sell used products [**Android SDK, AWS EC2, Firebase**]
- The app incorporates features like user profiles, news feed, friend system, post sharing & E2EE private chats [**Flask**]

## ACHIEVEMENTS

**Most useful hack at Hack OH I/O 2019:** Developed a chrome extension that provides e-commerce users with an option to donate with an added discount on the purchase, by watching an ad [**Bootstrap, Node.js, Express**] 🌐

**Impact Award 2018:** Recognized by Mu Sigma for workshop on use cases of ML in medicine [**BPMN, Data Modeling**]

**Mentorship program:** Guided new joiners at Mu Sigma on implementing **classification algorithms** in Python

**GAABESU Leadership Award 2013:** Recognized for securing first position at IEEE paper presentation 3 times