

EMPLOYMENT

Microsoft Corporation Office Group - Kaizala	Software Engineer	July 2017 – July 2019
<ul style="list-style-type: none">Designed a distributed message delivery system that is fault tolerant and scalable. (<i>SQL, Caching, RESTful APIs</i>)Built infrastructure components like Bucketization, efficient caching for large groups, with 100s of thousands of users.Enabled Chat history feature to let users access their old messages seamlessly by pre-loading and partitioning. (<i>C#</i>)Developed monitoring dashboards and metrics, pipelined them with profiler to identify bottlenecks for high availability.Migrated various service entities from legacy data store to Microsoft Substrate and SQL without any downtime. (Azure)Technology Stack: C#, Azure, Redis, SQL, RESTful APIs, Microsoft Substrate, Azure Table Storage, Azure profiler		
Microsoft Corporation	Software Engineer Intern	May 2016 – July 2016
<ul style="list-style-type: none"><i>Bing Places</i> is a web mapping service provided as a part of Microsoft's Bing suite of search engines.Worked in <i>Bing Places</i> team to develop an android application from scratch to work with the existing APIs. (<i>Android</i>)Designed and developed the android application to make the product accessible for moving business owners to cloud.Implemented AAD authentication, GCM notifications and some battery optimizations. (<i>Android, RESTful APIs</i>)		
Triveni Labs (Now Wishbook.io)	Software Engineer Intern	May 2015 – July 2015
<ul style="list-style-type: none">Implemented Custom Search in the e-commerce website, to enable search for the products using the description. (<i>PHP</i>)Added Reverse Image Search to enable searching using images. (<i>RESTful APIs</i>)Worked in Magento platform, with PHP as the main language. (<i>PHP, Magento, HTML</i>)		

EDUCATION

University of Massachusetts	Amherst, MA	Fall 2019 – May 2021
<ul style="list-style-type: none">Master of Science in College of Information and Computer Science (CICS). – 3.9/4.0Graduate Coursework: Neural Networks; Reinforcement Learning; Systems for Data Science, Robotics, Algorithms for DS.		
Indian Institute of Technology Madras	Chennai, India	Fall 2013 – May 2017
<ul style="list-style-type: none">Bachelor of Technology in Computer Science and Engineering.Undergraduate Coursework: Operating Systems; Databases; Algorithms; Programming Languages; Comp. Architecture; Calculus I; Calculus II; Artificial Intelligence; Pattern Recognition.		

TECHNICAL EXPERIENCE

Projects

- GooPy – Search Engine** (2019). Built a search engine in Apache Spark to create forward and inverted index in PySpark. Files are stored in HDFS after scraping the web for better file management. Used RocksDB for storing the inverted index and hosted a Flask server to server http requests through browser or Postman. (*Spark, RocksDB, HDFS, Flask server*)
- Demographic Classifier** (2019). Built a classification system using Multi-task Convolutional Neural Networks to classify people in historical photographs and derive conclusions about change in demographics of race, face, etc. during major historical events like World War. Achieved accuracy of 94% for gender and 92% for race classification. (*Python, Keras, TF*)
- HCOPE** (2019). Designed a High-Confidence Off-Policy Evaluation algorithm for RL which uses previous episodes to come up with a new policy better than old one with given certainty using Augmented Random Search. (*Python, RL*)

ADDITIONAL EXPERIENCE AND AWARDS

- Hackathons:** Winner of HackHolyoke-2019 for best use of data for Skin Cancer Detection using Neural Networks.
- Patents:** Developed two novel ideas in messaging systems and applied for **two** patents, which are approved by Microsoft. (MS# 405864-US-NP and MS# 405866-US-NP).
- Scholarship:** Awarded Golden Jubilee Alumni Award for 4 consecutive years of my undergraduate studies.
- Leadership:** Best Zonal Volunteer for YouthForSeva-2019. Department Legislator at Student Legislative Council, IITM.

Languages and Technologies

- Languages: C#.NET, C++, C, Java, SQL, Python, HTML, PHP, R; Libraries: Numpy, Jupyter, Matplotlib
- Frameworks: Hadoop (MapReduce), Spark, RESTful APIs, Azure Compute, MongoDB, Redis
- Technologies: Visual Studio, Microsoft SQL Server, Eclipse, Android Studio, R Studio, Git, Postman, Matlab