Debopriyo Bhattacharya

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Education

Syracuse University - College of Engineering and Computer Science, Syracuse, NY — May 2020
Master of Science in Computer Science
Major Courses: Design & Analysis of Algorithms; Software Modelling & Analysis; Machine Learning for Security

Heritage Institute of Technology, India — July 2018
Bachelor of Technology in Computer Science and Engineering
Major Courses: Object Oriented Programming; Software Engineering; Data Mining; Web Intelligence & Big Data

Skills

- **Programing Languages:** Python, Java, C#, C++, SQL
- **Operating Systems**: Ubuntu, Windows, iOS, Android
- **Software and Platforms**: Amazon AWS, Visual Studio, Gliffy, Gephi, Adobe Acrobat

Certifications

- AWS Fundamentals: Going Cloud-Native by AWS on Coursera — February 2019
- Using Python to Access Web Data by University of Michigan on Coursera — January 2019
- Getting Started with Python by University of Michigan on Coursera — July 2018
- Java by HP Educational Services — July 2015
- Android by HP Educational Services — January 2015

Experiences

Remote Package Dependency Analyzer, *Syracuse University* — August 2018 ~ December 2018
- Created a remote code analysis tool with emphasis on analyzing C# code to detect file dependency
- Implements asynchronous message passing communication using WCF Framework
- GUI interface communicates with backend server to select files, initiate analysis and display results
- Implements Tarjan's algorithm to find strong components based on the dependency analysis

Network model properties for a real-life news network, *Heritage Institute of Technology* August 2017 ~ April 2018
- Extracted followers and following lists for accounts tweeting a certain hashtag using Twitter API
- Taking accounts as nodes and follow lists as edges formed information propagation graph
- Ignored outlier nodes with less than two connections, obtained clusters with maximum mutual connections
- Used python libraries and Gephi for visualizations, upon inspection clusters were proved to be biased groups

Summer Internship*, Stevens Institute of Technology*, Hoboken, NJ — June 2017 ~ July 2017
- Studied Convolutional Neural Networks and its applications in computer vision problems
- Created a prediction model in python using tensorflow library to identify scientific names of almost 5000 species using iNaturalist Challenge dataset
- Explored optimization techniques like data augmentation by modifying images to increase training dataset
- Trained AlexNet and Inception-v3 models on Amazon AWS EC2 instances to compare results, Inception-v3 gave best result with 96.47% accuracy

Research Assistant, *HCL Technology* — June 2016 ~ August 2016
- Assisted with research to identify manufacturing sectors that can expand with digital transformations
- Prepared presentations on how IoT and Digitalization enables real-time data transfers to streamline production
- Co-authored whitepaper published by HCL on transforming Sales and Operations Planning Process with IoT

Leadership & Involvement

Rotaract Club of Heritage Institute of Technology, *Director/Member* — September 2014 ~ April 2017
- Taught underprivileged children spoken English, grammar, mathematics and computer skills
- Supervised functioning and efficacy of all projects undertaken by the club as the Director for two years

Debate Club of Heritage Institute of Technology, *President/Member* — September 2014 ~ April 2017
- Represented my College in Asian Parliamentary Debates in different Colleges across the state
- Elected Club President, organized Heritage Parliamentary Debate where more than 25 Colleges participated