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, Jupyter Notebook, Colab

Certifications

- Secure & Private AI Challenge Scholarship by Facebook on Udacity — June 2019
- Linux Administration Bootcamp on Udemy — March 2019
- AWS Certified Solutions Architect – Associate 2019 on Udemy — March 2019
- Getting into DevOps on Udemy — March 2019
- Using Python to Access Web Data by University of Michigan on Coursera — January 2019

Experience

Summer Internship, *Health Catalyst, Salt Lake City, Utah* — July 2019 ~ August 2019

- Setup an open source Electronic Health Record system on azure that can be used to teach and train users
- Generated fake healthcare information of patients to populate the EHR database
- Used Health Catalyst's source mart tool to pull data from the EHR database to SQL Server database
- Created a data profiling tool using C# to run groups of SQL queries and give report on data quality

Malware Classification using Windows API calls, *Syracuse University,* Syracuse, NY — January 2019 ~ April 2019

- Executed malware and benign samples on Cuckoo's Sandbox and extracted Windows API call sequence
- Created a feature vector of API function calls, their frequency and malware class using VirusTotal.com API
- Trained a neural network on this data which currently detects malware with 94% accuracy

Remote Package Dependency Analyzer, *Syracuse University,* Syracuse, NY — 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

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
- 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

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