Shibani Singh

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LinkedIn | Github

SUMMARY

Software Engineer @ Intel Corporation, with **MS thesis work** on "Deep Learning based Classification of FDG-PET Data for Alzheimer's Disease". Passionate about machine learning & deep learning. Programming skillset includes C, Python, Java & C++.

EDUCATION

ARIZONA STATE UNIVERSITY
M.S. in Computer Science | Eta Kappa Nu (IEEE Honors Society)
Graduated May 2017 | Tempe,AZ
Cum. GPA: 3.8/4.0

THE LNM INSTITUTE OF INFORMATION TECHNOLOGY
B.Tech in Computer Science
May 2015 | Rajasthan, India
Cum. GPI: 8.8/ 10.0

AWARDS

2014   Full Funding Scholarship to present, LWMOOCS Workshop, MIT
2011   INSPIRE (Innovation in Science Pursuit for Inspired Research)

COURSEWORK

GRADUATE
Machine Learning
Computer Architecture II
Mobile Computing
Software Security
Software Design
Game Theory with Applications
Advanced Computer Graphics
Advanced Geometric Modelling
Computational Conformal Geometry

UNDERGRADUATE
Linear Algebra
Scientific Computing
Design & Analysis of Algorithms
Information Security and Cyber Laws
Object Oriented Programming (Java)
Digital Image Processing
Data Mining

SKILLS

Programming Languages:
C • Python • Java • C++ • Scala • PHP • LaTeX
Applications:
BASH• Spark • CDH • MATLAB • Tensorflow • IntelliJ • Linux • MacOS • MySQL

CERTIFICATIONS
Oracle Certified Java Professional (2014)

PROFESSIONAL EXPERIENCE

INTEL CORPORATION | Software Engineer
June 2017 - Present | Oregon, United States
I work as a Research Engineer part-time for Security and Privacy Research group at Intel Labs where I am currently investigating the utility-privacy trade-off for algorithms that are differentially private. I am a Software Engineer in the Data Center Group where my responsibilities include SW/HW specifications, design, development and deployment of scalable and optimized for IA - ML/DL use cases for Data Centric customers (H2O.ai, Splunk).

INTEL CORPORATION | Software Engineer Intern
May - August 2016 | Oregon, United States
I contributed to the development of spark toolkit on the Trusted Analytics Platform TAP spark-tk, a Spark based toolkit for developing data analytics solutions for distributed platforms and also did a side project where I benchmarked Deep Learning libraries (H2O Sparkling Water vs. Distributed Tensorflow) on distributed systems.

INDIAN INSTITUTE OF TECHNOLOGY | Software Development Intern
January 2014 - May 2014 | Mumbai, India
My responsibilities were to extend the open source framework I.I.T. BombayX MOOC an eLearning Platform provided by edX to accommodate the backend requirements of blended MOOC. I was subsequently invited to present my contributions at the LWMOOCs Workshop at MIT, Aug' 2014.

PUBLICATIONS/PRESENTATIONS

2019   Splunk .conf - High performance Data Analytics with Splunk on Intel
2018   Spark AI Summit - Deep Learning Based Opinion Mining for Bitcoin price Prediction
2017   Conference Paper, Master's Thesis - work funded by NSF - SPIE Journal
2017   Poster - Deep Learning, Arizona Alzheimer's Consortium
2017   Poster - Machine Learning systems, Arizona Alzheimer's Consortium

ACADEMIC PROJECTS

ALPHABETS, DETECTION OF AMERICAN SIGN LANGUAGE | Tools Used: Myo Sensor, R, Java, PHP
Developed an Android app to translate Sign Language Alphabet actions to readable text, also spelled out using wireless sensors. The context consists of signals collected from various sensors placed on the arm of a user using a wireless armband (Myo sensor).

SOCIALLY EXPRESSIVE PHYSICAL AGENT | Tools Used: 3D printer, PSoC Creator 4.0
Developed a 3D robot face from 3D printing it, to wiring, and programming it to be capable of displaying facial expressions.

SPHERICAL CONFORMAL PARAMETRIZATION | Tools Used: C++, Mesh Library
Implementation of gradient descent algorithm to find a unique mapping between any two genus zero manifolds by minimizing the harmonic energy of the map.

IMPLEMENTATION OF INSERTION POLICIES - CACHE | Tools Used: C++, gem5
Implementation of LRU insertion Policy, Bi-modal Insertion policy,Dynamic Insertion Policy, BRRIP and DRRIP in gem5.

POLARIS, PREVENTION OF CROSS SITE SCRIPTING ATTACKS
Tools Used: Python, PHP
Developed a tool Polaris, which sanitizes user input on behalf of the developer to prevent XSS attacks which given a PHP file, returns a modified version robust to XSS attacks.