

EDUCATION

UNIVERSITY OF WISCONSIN – MADISON | M.S. (COMPUTER SCIENCE) [Sep'19 - Present]

VIT UNIVERSITY, VELLORE, INDIA | BTech. (COMPUTER SCIENCE) CGPA: 8.72/10 (**Top 10%**) [Jul '14 – Jul'18]

- **Ranked 1st among 750 students** in Academic Year 2014 – 2015.
- **Scored 10/10 GPA** in Computer Programming and Problem Solving, Data Structures & Algorithms, Database Systems, Data Warehousing & Data Mining, Computer Networks, Soft Computing.

WORK EXPERIENCE & INTERNSHIP

MORGAN STANLEY (FOR WISSEN TECHNOLOGY) | *TECHNOLOGY CONSULTANT* [Jun'18 – Jul'19]

- Worked on **Java**, **Spring** and **Angular** to migrate a PB Custody Tech project and was awarded the **Best Team Award** internationally in the Institutional Securities Tech Division.
- Tasked with designing software architecture, performing database optimization and building API services from scratch using the **Model-View-Controller** design pattern for the project. Also worked on fixing complex UI bugs.

BHARTI AIRTEL LIMITED | *SUMMER ENGINEERING INTERN* [Jun'17 – Jul'17]

- Modified the MQTT protocol header to optimize for cloud computing and implemented an interval based transmission algorithm which allowed for support for >25,000 devices at any point of time
- Developed a data-warehousing framework (in Python) for faster OLAP reducing the disk-space requirement for transactional database by 25% and used Raspberry Pi & AWS to build a prototype.

ACADEMIC PROJECTS

Industrial Training Project – Interview Web Tool - JustHire [Jun'18 – Jul'18]

- Developed tool to automate the process of taking interviews with the difficulty level of questions being dynamically modulated according to the performance of the candidate using **Java & Angular**.

Research Project – Data Breach Analysis And Solution for Aadhaar [Dec'17 – May'18]

- Performed Principal Component Analysis (PCA) on 2004 – 2017 dataset to identify critical factors (such as year, type of organization, type of industry) by making use of **dimensionality reduction** and **feature elimination** techniques.
- Used **Lowess regression** to predict the number of data breaches in the future on the basis of the dataset and 66% accuracy was achieved by balancing overfitting and underfitting.

Software Engineering Coursework Project – OCR for Devanagari Script [Jan'17 – May'17]

- Developed an **Optical Character Recognition** Software for Devanagari script to provide text in an editable format using **Python** and **Google Tensorflow** Neural Network using supervised learning approach.
- Achieved 91% accuracy and 83% validation accuracy and reduced cross entropy to 0.44.

Algorithm Design – Pseudo Random Number & Random Variate Generation [Jan'16 – May'16]

- Implemented pseudo random generator using different algorithmic techniques and performed statistical analysis to check the randomness of generated numbers.
- Used linear congruential method, combined linear congruential method and Poisson distribution method for random number generation.

RESEARCH PAPERS

- **Published** – 'Privacy and Security in Aadhaar' – International Journal of Engineering Development And Research, Volume 6, Issue 4, October 2018 – Link: https://www.ijedr.org/viewfull.php?&p_id=IJEDR1804017
- **Published** - 'Efficient Object Recognition Using Convolution Neural Networks' - International Journal of Computer Application, Volume 161, Issue 2, March 2017 – Link: <http://www.ijcaonline.org/archives/volume161/number2/thakral-2017-ijca-913123.pdf>
- **Published** - 'Internet of Things and Creation of Fifth V of Big Data' - International Journal of Science and Research, Volume 6, Issue1, January 2017 – Link: <https://www.ijsr.net/archive/v6i1/ART20164394.pdf>

ACADEMIC ACHIEVEMENTS

- **Awarded Merit Scholarship on University Day** 2015 for being Rank 1 in Academic Year 2014-15 in VIT
- **Instructed** session on Programming Skills as part of a Robotics Workshop organized by IEEE in VIT (Sep-14)
- **Secured** 99.96, 98.28, 92.77 percentile in Language Conventions, Qualitative Reasoning and Quantitative Reasoning respectively in the CBSE administered national-level Problem Solving Assessment Test in 2012-13
- **Peer Mentor** for the Computer Programming & Problem Solving class in VIT University.

OTHER INTERESTS

| | |
|--------------------------|---|
| SOCIAL EXPERIENCE | Teacher (Make A Difference), Member (University Debate Society & Google Developers Group) |
|--------------------------|---|