Jees **Augustine**

. ALGORITHM . GRAPHS . DATABASE . DATA SCIENCE . DEEP LEARNING . MACHINE LEARNING .

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EDUCATION

Ph.D. Computer Science and Engineering   Arlington, Texas
University of Texas at Arlington, USA   2014 -PRESENT
(CGPA: 4.0/4.0)

Master in Engineering . Computer Science and Engineering   Pilani, India
Birla Institute of Technology & Science, Pilani, India   Fall 2011- Fall 2013
(CGPA: 8.19/10.0)

PROFESSIONAL EXPERIENCE

Cisco Systems - India   Bangalore, India
SOFTWARE ENGIEER II   Aug-2013 – Aug-2014

- Implementation and refinement of features in **Multi-Protocol Label Switching (MPLS)** and **Fast Rerouting (FRR)** on mobile backhaul networks.

EMC Corporation   Bangalore, India
PROJECT INTERN   Jan-2013 – Jun-2013

- Design and development of an application, choreographing the Backup Server Install/Upgrades in **Python**.
- Devising a **pseudorandom number generator** for verifying the client-side deduplication.

Indian Institute of Technology - Chennai   Chennai, India
PROJECT INTERN   May-2012 – Jul-2012

- **Online Minimum Makespan Scheduling** with improved Buffer Size.

Vikram Sarabhai Space Center (VSSC)   Trivandrum, Kerala
PROJECT INTERN   Nov-2009 – Jan-2009

- **Design of information warehousing** system for launch vehicle simulations using **JSP** and **MySQL**.

SKILLS

Data Analysis	Pandas, NumPy, SciPy
Machine Learning	SciKit-Learn
Deep Learning	Keras, TensorFlow
Visualization	Matplotlib, Tableau(beginner)
Languages	Python, C, Java, HTML, JSP
Databases	MS Access, MS SQL Server, MySQL, Oracle
Web Technologies	HTML, XML, CSS, JavaScript
Query Languages	SQL, PLSQL

PUBLICATIONS

- Abolfazl Asudeh, Azade Nazi, **Jees Augustine**, Saravanan Thirumuruganathan, Nan Zhang, Gautam Das, Divesh Srivastava. "**Leveraging Similarity Joins for Signal Reconstruction**". *Accepted* **VLDB**: *Very Large Databases* **2018**.

- [Poster] Abolfazl Asudeh, Azade Nazi, Saravanan Thirumuruganathan, **Jees Augustine**, Sona Hasani, Nan Zhang, Gautam Das, Divesh Srivastava. "**Finding the Closest Point to a Prior in Large-Scale Sparse Binary Under-Determined Systems**", In *iPerform 2017*.

- [Poster] Azade Nazi, **Jees Augustine**, Saravanan Thirumuruganathan, Gautam Das, Divesh Srivastava, Nan Zhang. "**Finding Top-k Source-Destination Flows in a Network**". In *iPerform 2016*.

WORKING PROJECTS

- AEL: **Deep Learning Models** to Predict User's Spatial Locations Using GPS Data
- Computing **Top-K Nearest Neighbor Graph** through Crowdsourcing

RELVANT COURSES

Advanced Computational Models and Algorithms . Special Topics in Advanced Information Security **. Machine Learning . Advanced Algorithms and Complexity .** Advanced Computer Networks **.** Advanced Operating Systems **. Algorithm Analysis and Design .** Security in Computing **. Data Analysis and Modeling .**

CERTFIED COURSES ONLINE - MOOC

- Coursera **Introduction to Data Science in Python**   -Link-
- Coursera **Programming for Everybody, Getting Started with Python**   -Link-
- Coursera **Python Data Structures**   -Link-
- Coursera **Using Python to Access the Web Data**   -Link-
- Coursera **Using Databases with Python**   -Link-

ONGOING COURSES ONLINE - MOOC

- Coursera **Deeplearning.Ai**
- Coursera **Machine Learning**
- Coursera **Neural Networks for Machine Learning**
- Udacity **Deep Learning from Google**
- edx **Machine Learning for Data Science**

PROJECTS

1. **Face Recognition using Support Vector Machines (SVM)**   UTA, Sep 2014 – Dec 2014
   - **Technology** Python2.7, NumPy, SciPy
   - **Dataset** AT&T Image Dataset (40 different individuals)
   - **Methodology** **Principal Component Analysis** for dimentality reduction, **SVM** for classification
   - **Accuracy** 88% in Testing

2. **Image Recognition using Linear Discriminant Analysis (LDA)**   UTA, Sep 2014 – Dec 2014
   - **Technology** Python2.7, NumPy, SciPy
   - **Dataset** AT&T Image Dataset (40 different individuals)
   - **Methodology** **Principal Component Analysis** for dimentality reduction, LDA for classification
   - **Accuracy** 94% in Testing

3. **Choreography of Backup Server Install/Upgrade**   EMC-Corporation, Bangalore: Jan 2013 – Jun 2013
   - **Technology** Python2.7, Linux, EMC Avamar, MySQL
   - **Dataset** Proprietary, EMC corporation
   - **Methodology** **Choreograph the Software Upgrade**, Generate **Pseudo Number** from Linux to test, Validation and Sanity Check
   - **Deployment** for Internal Use at EM Corporation

4. **Live Migration of Virtual Machine over a Network**   BITS, Pilani, Aug 2012 – Dec 2012
   - **Technology** Java, Linux, MySQL, KVM
   - **Dataset** Synthetic Dataset Generated
   - **Methodology** Premature Negotiation, Push-Pull Negotiation with source and destination
   - **Deployment** Experiential

5. **Middleware framework on the cloud enabling Semantic Dynamic Composition** BITS, Pilani, Jan 2012 – Dec 2012
   - **Technology** Java, Linux, MySQL
   - **Dataset** Synthetic Dataset Generated
   - **Methodology** Sematic module identification with Natural Language, compose brand-new cloud services based on requirement
   - **Deployment** Experiential

6. **Distributed System Simulator**   BITS, Pilani , Sep 2011 – Dec 2011
   - **Technology** Java, Linux
   - **Dataset** Synthetic Dataset Generated
   - **Methodology** **Deadlock Detection**, **Deadlock Prevention**, Process Synchronization, **IPC**
   - **Deployment** Experiential

7. **Design of Information Repository System for Launch Vehicle**   VSSC, ISRO, India Dec 2010 - Jan 2011
   - **Technology** JSP, MySQL, Apache Server
   - **Dataset** Proprietary flight data ISRO
   - **Methodology** **Deadlock Detection**, **Deadlock Prevention**, Process Synchronization, **IPC**
   - **Deployment** for Internal Use at VSSC, ISRO

RESEARCH EXPERIENCE

- **Graduate Research Assistant** DBXLab University of Texas at Arlington   Spring 2017, Spring 2018

TEACHING and MENTORSHIP

- **STEM Scholarship** for Graduate Teaching Assistant at long semesters at UTA.   Fall 2014 – Current
- Graduate Teaching Assistant, **Secure Programming**, UTA.   Fall 2017
- Graduate Teaching Assistant, **Advanced Topics in Database Systems**, UTA.   Summer 2016

- Graduate Teaching Assistant, **Computer Networks**, UTA.   Fall 2016, Spring 2016
- Graduate Teaching Assistant, **Computer Networks I: Protocols and Architecture**, UTA.   Fall 2014 – spring 2015
- Teaching Assistant, **Data Structure and Algorithms**, Birla Institute of Technology and Science, India.   Fall 2012
- Teaching Assistant, **Computer Networks**, Birla Institute of Technology and Science, India.   Fall 2011 – Spring 2012

ACADEMIC ACHIEVEMENTS

- **1 among the 18 qualified** for BITSAT- Higher Degree Program (Computer Science), an **All India entrance examination** for admission into Master Degree by Birla Institute of Technology and Science, Pilani (BITS-Pilani), India.
- Secured **98.88 Percentile** in Graduate Aptitude Test in Engineering (**GATE**) in 2011 (**Written by .13M Students**).
- Project Forum Member (Masters) Computer Science Association BITS – Pilani.
- Secured 1st position for presenting the paper "Self-Defending Networks-A Smarter Way to Defend" at XTRIUM 09 v.20, Technical Festival by Association of Electronics and Communication Engineering, MACE, Kothamangalam.
- Secured 2nd position for presenting the paper "Self-Defending Networks with Automatic Intrusion Detection" at Qbit'09 v.20, Technical Festival organized by Department of Computer Science and Engineering, MACE, Kothamangalam.