Jees Augustine

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

815 Bering Drive, Apt # 1414 – C, Arlington

☎ (+1) 682-560-7416 | ✉ augustine.jees@gmail.com | https://jeesaugustine.github.io/ | ⍥ @jeesaugustine | in/jeesaugustine

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 . Reasoning with Uncertainty .**

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**

RESEARCH EXPERIENCE

- **AT&T Research Grant, DBXLab** University of Texas at Arlington   Spring 2017
- **Qatar Research Foundation Grant, DBXLab** University of Texas at Arlington   Spring 2018

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 dimensionality 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 dimensionality 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

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.