Jayneel Vora

Incoming PhD in CS Student at UC Davis.

Citizenship: **Indian**. Current University: **University of California-Davis, USA**

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Programming Languages:

- Expert-level: Python
- Professional-level:C,C++,Java,R,SQL, HTML5, CSS, JavaScript, Tableau
- Amateur-level: ENVI-IDL, Matlab, C#, Shell Scripting

Technologies well versed with:

- Azure, Machine Learning, Computational Neuroscience, Hyperspectral Image Processing(Remote Sensing-GIS), Android App Development, Deep Learning, Image Processing.
- Hadoop, Spark, Cassandra, Hive, Pig, MongoDB.
- Fog Computing, Natural Language Processing, GPU Processing, LAMP stack, AWS, Alexa Voice Services

ONGOING INVOLVEMENTS:

1. Mentor of Change, NITI AYOG, Government of India
2. Reviewer, ICSECC 2019
3. Coursera Beta Tester.
4. Book chapter- "Reinforcement Learning in Healthcare".

INTERNSHIP EXPERIENCE:

1. Tech Intern; **Sentinel Healthcare**, USA. (May 2017-July 2017)
2. Intern, AI and Human-Computer Interaction, **BrünHealth**, India(May 2018-July 2018)
3. Remote Intern, Blockchain, **TurboClinic**, San Fransisco, USA (July 2018-August 2018)
4. Remote Intern, AI and Human-Computer Interface,**BrünHealth**, India(September 2018-November 2018)
5. Intern, AI and Human-Computer Interaction, **BrünHealth**, India(Jan 2019-May 2019)

OBSERVERSHIPS

1. **Swedish Medical Centre,** Seattle, USA(July 2017)

   Shadowing the Stroke director, experienced a clot removal surgery, occupational therapists, stroke patients.

2. **Johnson City Medical Hospital**, TN, USA(July 2017)

   Shadowing paediatric neurologist, occupational and physical therapists, radiologists.

3. **Oasis Pavilion**, Arizona, USA(July 2017)

   Shadowing medical in charge, occupational therapists, working of a care-home.

4. **Institute Of Scienc**e, Nirma University(September 2017)

   Shadowing a Doctoral student on the process of karyotyping.

5. **Unipath Laboratory**, Ahmedabad, India(October 2017)

   Shadowing lab technician on using Karyotyping software.

RESEARCH EXPERIENCE (not leading to a publication)**:**

1. **Reviewing Fog Computing as a Tool for Healthcare Communications**(Aug'18-)

   Reviewing various Fog based scenarios under Dr Isabel De La Torre Diaz

   eHealth and Telemedicine Group, Universidad de Valladolid.

2. **Crowd Motion Analysis.(**Jan 2017 - March 2017)

   Identifying crowd patterns during Rathyatra under Prof. Shanmuganathan Raman, IIT-Gn.

3. **Spectral Discrimination and Separability Analysis of Crops-Weeds, ISRO Funded(**Jan 2017 - May 2017)

   Detection of crop and weed analysis based on HyperSpectral Imagery under Dr Vibha Patel.

AWARDS

1. Best Paper Award,2019 IEEE ICC Workshops: SecSDN: Secure and Dependable Software Defined Networking for Sustainable Smart Communities- May'19.
2. Travel Grant, IEEE GLOBECOMM'18, **Globecom Executive Chair Grants**- Dec'18
3. Travel Grant, IEEE SS12:: IEEE Gujarat Section- Sep'18
4. Felicitated, Nirma University Foundation Day for extensive research in Computer Networks.

MISCELLANEOUS PROJECTS

1. **Identifying the effect of Hindu Prayers on the Human Brain Waves(** Aug'18-Nov'18**)**
2. **Private Cloud Implementation(**February 2017-April 2017)
3. **Automatic Karyotyping Software(**September 2017- January 2019)
4. **Cricket Teller: Amazon Alexa App.** (March 2018)
5. **Hypertensive Retinopathy(**October 2017- December 2017)
6. **Traffic Light Manipulation For Emergency Services(**September 2017 - Ongoing)
7. **Information Extractor for Chatbots(**January 2017 - March 2017)
8. **Admission Management System**(Sep 2016 - Nov 2016)

EDUCATION

Institute Of Technology, Nirma University - AUGUST 2015- MAY 2019
- B.Tech. in Computer Engineering: CGPA 7.74/10.

Udgam School For Children- *k-12*

- Scored 91% in 12th grade and 9.6/10 GPA in 10th grade.

IEEE Involvements

1. Team Member, IEEE Technenergize'18 IEEE Kolkata.
2. Team Lead, IEEE Technergize'19 IEEE India Council
3. Selected for Final Round, IEEE SS12'18 Sri Lanka

MOOCs

1. Coursera: Vital Signs: Understanding What the Body Is Telling Us. (April 2019) link
2. Coursera: Writing For Sciences- Stanford (Novemeber 2018) link
3. Coursera: Machine Learning- Stanford (November 2016)link
4. **Specialization:** Coursera: Introduction to Data Science link
    a. Coursera: Databases and SQL for Data Science(December 2018) link
    b. Coursera: What is Data Science?-IBM (October 2018) link
    c. Coursera: Open Source Tools For Data Science-IBM (Novemeber 2018) link
    d. Coursera: Data Science Methodology (November 2018) link
5. NPTEL: Introduction To Machine Learning- IIT Kharagpur link
6. NPTEL: Introduction To Cryptology- IIT Roorkee link
7. NPTEL: Introduction to Mobile App Development- IIT Madras link

Test Scores:

1. GRE: 325/340(Q:168, V:157)
2. TOEFL: 109/120(L:28 S:27 R:27 W:27)

Campus Involvements

1. **Club Captain**, **MozillaNirma**(2017) blog
2. Event Coordinator, **Entrepreneurship Cell**, Nirma University.(2016-18)
3. Event Coordinator, Computer Society Of India, Nirma Chapter(2015-17)
4. Event Coordinator, Indian Society Of Technical Education, Nirma Chapter(2015-17)
5. Member, **IEEE SB**, Nirma University(2017-19)
6. Student Placement Coordinator(2017-19)
7. Committee Member, Anti Ragging Committee(2017-19)

Invited Talks and Workshops

1. Mentor of Change, Atal Tinkering Labs, NITI AYOG, Government of India. (April 2019-)
2. Guest Speaker, "*Research Methodologies in the Field of Image Processing*", addressed M.Tech-CSE students at Nirma University, India on 3rd April 2017.

PEER-REVIEWED JOURNALS:

1. **Vora J**, Kaneriya S, Tanwar S, Tyagi S, Kumar N, Obaidat M, "TILAA: Tactile Internet-based Ambient Assisted Living in Fog Environment", Future Generation Computer Systems, Elsevier(**Accepted, Impact Factor:4.639**) link
2. S. Tanwar, **Vora J.**, S. Kaneriya, S. Tyagi, N. Kumar, V. Sharma, I.You, "Human Arthritis Analysis in Fog Computing Environment using Bayesian Network Classifier and Thread Protocol", **IEEE Consumer Electronics Magazine**, In press, 2018.(SCI, Impact Factor: **1.153**)
3. S. Tanwar, **Vora J.**, S. Tyagi, N. Kumar, and M.S. Obaidat"A Systematic Review on Security Issues in VANET", **Security and Privacy Journal**, Wiley, (Peer Reviewed Journal of John Wiley & Sons Ltd) link

INTERNATIONAL CONFERENCES:

1. Tanwar S, **Vora J,** Kaneriya S & Tyagi S, "Fog based Enhanced Safety Management System for Miners", 3rd International Conference on Advances in Computing, Communication & Automation, (ICACCA-2017), Tula Institute, Dehradun, UA. (**Presented, and Indexed in IEEE-Xplore, SCOPUS**) link

2. M. Gor, **Vora J**, S. Tanwar, S. Tyagi, N. Kumar, M. S. Obaidat & B. Sadoun, "GATA: GPS-Arduino Based Tracking and Alarm System for Protection of Wildlife Animals", International Conference on Computer, Information and Telecommunication Systems (IEEE CITS-2017), Dalian University, Dalian, China, 21-23 July 2017, pp. 166-170. (**Indexed in IEEE-Xplore, SCOPUS**) link

3. **Vora J,** Tanwar S, Tyagi S, Kumar N & Rodrigues J P C, "FAAL: Fog Computing- based Patient Monitoring System for Ambient Assisted Living", IEEE 19th International Conference on e-Health Networking, Applications and Services (Healthcom-2017), Dalian University, Dalian, China, 12-15 October 2017, pp. 106.(**Indexed in IEEE-Xplore, SCOPUS**) link

4. **Vora J,** Tanwar S, Tyagi S, Kumar N & Rodrigues J P C, "Home-based Exercise System for Patients Using IoT Enabled Smart Speaker", IEEE 19th International Conference on e-Health Networking, Applications and Services (Healthcom-2017), Dalian University, Dalian, China, 12-15 October 2017, pp. 1-6.(**Indexed in IEEE-Xplore, SCOPUS**) link

5. **Vora J,** Kaneriya S, Tanwar S, Tyagi S, "Performance Evaluation of SDN based Virtualization for Data Center Networks", IEEE 3rd International Conference on Internet of Things: Smart Innovation and Usages (IoT-SIU 2018), BIAS,Bhimtal, Nainital, Uttarakhand, India, 23-24 February, 2018 (**Presented and Indexed in IEEE-Xplore**)link

6. **Vora J**, Patel M, Tanwar S, Tyagi S, "Image Processing Based Analysis of Cracks on Vertical Walls", IEEE 3rd International Conference on Internet of Things: Smart Innovation and Usages (IoT-SIU 2018), BIAS,Bhimtal, Nainital, Uttarakhand, India, 23-24 February, 2018 (**Presented and Indexed in IEEE-Xplore**) link

7. Patni N, Shah P, **Vora J**, Shah V,"Automation of process evaluation of Saccharification of wheat starch followed by fermentation of glucose to prepare Bioethanol using Digital Image Processing","Information and Communication Technology for Intelligent Systems", ICTIS 2018, Ahmedabad,India(**Presented, to be indexed on SpringerLink, SCOPUS)** link

8. **Vora J**, Devmurari P, S. Tanwar, S. Tyagi, N. Kumar, M. S. Obaidat & B. Sadoun, "Blind Signatures Based Secured E-Healthcare System", International Conference on Computer, Information and Telecommunication Systems (IEEE CITS-2018), Colmar, France, 10 July 2018(**Indexed in IEEE Xplore, SCOPUS**) link

9. **Vora J**, Italiya P, S. Tanwar, S. Tyagi, N. Kumar, M. S. Obaidat & Kuei-Fang Hsiao,"Ensuring Privacy and Security in E-Health Records", at International Conference on Computer, Information and Telecommunication Systems (IEEE CITS-2018), Colmar, France, 10 July 2018(**Indexed in IEEE Xplore,SCOPUS**) link

10. **Vora J,** S Tanwar, S Tyagi, N Kumar, M.S. Obaidat and Joel J P C Rodrigues,"BHEEM: A Blockchain-based Framework for Efficient Storage and Maintenance of Electronic Health Records", IEEE Global Communications Conference (IEEE GLOBECOM-2018), Abu Dhabi, UAE, 09-13th Dec 2018, pp. 1-6. (**presented,indexed in IEEE-Xplore**) link

11. **Vora J**, Vekaria D, Tanwar S, Tyagi S, "Machine Learning-based Voltage Dip Measurement of Smart Energy Meter" at 5th International Conference on Parallel and Distributed Computing (PDGC-2018) from 20-22 December 2018 at Jaypee University of Information Technology, Waknaghat, Solan, HP, INDIA(**Indexed in IEEE Xplore**) **link**

12. **Vora J,** PK Singh, Zdzislaw P, Tanwar S, Tyagi S and Singh Y, "Machine Learning-based Software Effort Estimation: An Analysis"," 11th International Conference on Electronics, Computers and Artificial Intelligence – ECAI'2019", 27-29 June 2019, Pitesti - ROMANIA(**Accepted, to be indexed in IEEE-Xplore**)

13. Kaneriya S, **Vora J**, Tanwar S, Tyagi S,"Standardising the use of Duplex Channels in {5G-WiFi} Networking for Ambient Assisted Living", "019 IEEE International Conference on Communications Workshops (ICC Workshops): SecSDN: Secure and Dependable Software Defined Networking for Sustainable Smart Communities (ICC 2019 Workshop - SecSDN)", 20-24 May 2019, Shanghai, China (**BEST PAPER AWARD, indexed in IEEE- Xplore**) **link**

14. **Vora J,** Kaneriya S, Shah P, "Real-time Health and Medical Monitoring System Using Accelerometer with Body Area Network", 2nd International Conference on Communication and Computational Technologies (ICCCT-2019), Jaipur, India, 30-31 August 2019 (Will be published in **Algorithms for Intelligent Systems (AIS)-Springer**)

15. **Vora J**, S Tanwar, S Tyagi, N Kumar and Joel J P C Rodrigues, "HRIDaaY: Ballistocardiogram-based Heart Rate Monitoring Using Fog Computing", IEEE Global Communications Conference (IEEE GLOBECOM-2019), Hawaii, USA, 9-13 Dec 2019, pp. 1-6. (**Will be Indexed in IEEE-Xplore as well as in SCOPUS**)

References

1. **Dr Prashant Jha**
   Fellowship Director, School of International Biodesign, Delhi- drpjha@biodesign.school
2. **Mr Ravi Pamnani**
   Founder and CEO, Intact Therapeutics ravip@alumni.stanford.edu
3. **Dr Nirav Shah**
   CEO, Sentinel Healthcare,, Seattle.- nirav.shah@sentinel.healthcare
4. **Dr Neeraj Kumar**
   Associate Professor, Computer Engineering, Senior Member, IEEE :- neeraj.kumar@thapar.edu
5. **Dr Sudeep Tanwar**
   Associate Professor, Nirma University, India:- sudeep.tanwar@nirmauni.ac.in