JAYNEEL RIPAL VORA
University Of California, Davis

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RESEARCH INTERESTS
Differential Privacy, System Design, Wireless Communications, Networks,Security, Machine Learning, VANETs

EDUCATION

University of California, Davis — Sep'19-Ongoing
Doctorate of Philosophy (Ph.D.) in Computer Science
Advisor: **Prasant Mohapatra**

Institute of Technology, Nirma University — Jul'15-May'19
Bachelors in Technology(B.Tech) in Computer Engineering
Advisor: **Dr Sudeep Tanwar**
Major Project: AI-Assisted Maternal and Child Health Chatbot.

RESEARCH EXPERIENCE/ GRADUATE FELLOWSHIPS

Institute of Pure and Applied Mathematics, UCLA — Sep-Dec'20
Graduate Research Fellow for 'Mathematical Challenges and Opportunities for Autonomous Vehicles'

Graduate Student Researcher, Lawrence Berkeley National Laboratory — Jun '20- Sep '20
- Advisor: Dr Sean Peisert
- Working on: Differential Privacy for EHR Records.

Graduate Student Researcher, Networks Lab, UC Davis — Sep '19-Jun '20
- Worked on: Standardising a metric for IoT reliability

Undergrad Researcher, Nirma University — Jan '17- Dec '18
- Designed and developed systems for Ambient Assisted Living

Undergrad Researcher- Spring Intern, IIT- GN, India — Jan '17 -Mar '17
- Worked on designing the workflow for crowd motion analysis.

INDUSTRY INTERNSHIPS

BrunHealth Pvt. Ltd, New Delhi, India — Jan-Apr'19
Mentors: Dr **Prashant Jha**, Prateek Saraswat and Manisha Laroia
- Designed a keyword analyzer and message-topic matcher.
- Designed a recommendation system for personalized messages, mimicking the Quartz chat app.

BrunHealth Pvt. Ltd, New Delhi, India — May-Jul'18 / Sep-Nov'18
Mentors: Dr **Prashant Jha**, Prateek Saraswat and Manisha Laroia
- Designed a human interaction model for expecting mothers
- Developed a command-line implementation of the bot.
- Deployed the bot on the FB page and furthered analysis.

Sentinel Healthcare, Seattle, USA — May-Jul'17
Mentors: Dr **Nirav Shah**, Dr Jorge Sanchez and Dr Tanzid Shams
- Observed doctors and therapists understanding the workflow in hospitals, clinics and care homes.
- Designed and developed a gait-analyzer prototype which was tried out at an outpatient clinic.

OBSERVERSHIPS

Swedish Medical Centre, Seattle, USA — Jul '17
Shadowed the Stroke director, experienced a clot removal surgery, observed occupational therapists and stroke patients.

Johnson City Medical Hospital, TN, USA — Jul '17
Shadowed a paediatric neurologist, an occupational and physical therapists and radiologists.

Oasis Pavilion, Arizona, USA — Jul '17
Shadowed the medical in charge, occupational therapists and the working of a care-home.

Institute Of Science, Nirma University — Sep '17
Shadowed a Doctoral student on the process of karyotyping.

Unipath Laboratory, Ahmedabad, India — Oct '17
Shadowed the lab technician on using a karyotyping software.

AWARDS
- ❏ Graduate Group of Computer Science Fellowship- UC Davis
- ❏ Best Paper Award,2019 IEEE ICC Workshops: SecSDN
- ❏ Travel Grant, IEEE GLOBECOMM'18, Globecom Executive Chair Grants

TEACHING	Associate Instructor, ECS390 Teaching in Computer Science	Fall 2020
	Lead Teaching Assistant, ECS 132 Probability & Statistical Modeling	Summer 2020
	Lead Teaching Assistant, ECS 20 Discrete Mathematics	Spring 2020
	Lead Teaching Assistant, ECS 20 Discrete Mathematics	Winter 2020

SELECTED PUBLICATIONS

JOURNALS AND PEER REVIEWS

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(Impact Factor:4.639)

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. (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)

CONFERENCE PROCEEDINGS

4. 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.

5. 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.

6. **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.

7. **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.

8. **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.

9. **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.

10. **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.

11. **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.

12. Kaneriya S, **Vora J,** Tanwar S, Tyagi S,"Standardising the use of Duplex Channels in {5G-WiFi} Networking for Ambient Assisted Living", 2019 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)**

13. **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.

PROJECTS WORTH

1. Tikaa project, a vaccine record keeping system- www.jayneelvora.com/thetikaa
2. The Insulin Keeper, a diabetes management system-www.jayneelvora.com/theinsulinkeeper

LEADERSHIP SKILLS

1. Club Captain, Mozilla Nirma 2018-19-www.jayneelatmozilla.wordpress.com
2. Founder, EduMasala 2015-16
3. GSA Representative, UC SHIP, Davis Committee.
4. GSA Representative, UC Davis Graduate Council Courses Sub-Committee.
5. GSA Representative, UC Davis Graduate Council Admissions and Enrollment Committee.

SERVICE

1. Reviewer, Wiley- Security and Privacy Journal
2. Shadow Program Committee, IEEE Security and Privacy