ACADEMIC FACULTY INFORMATION FORM
For the period September 1, 2019_ thru August 31, 2020

Name: Supraja Gurajala Title: Assistant Professor Department: Computer Science

I. Teaching Effectiveness

A. Courses taught

Fall 2019:
COMPUTER SCIENCE I-LEC - 90392 - CIS 201 - 001
COMPUTER SCIENCE I-LAB - 90317 - CIS 201 - 002
COMPUTER SCIENCE I-LAB - 90318 - CIS 201 - 003
THEORY OF COMPUTATION - 90105 - CIS 301 - 001
DATABASE SYSTEMS - 91038 - CIS 420 - 001
SENIOR PROJECT - 92064 - CIS 480 – 002

Spring 2020:
COMPUTER SCIENCE I-LEC - 80959 - CIS 201 - 001
COMPUTER SCIENCE I - LAB - 81160 - CIS 201 - 002
COMPUTER NETWORKS - 80140 - CIS 410 - 001
MACHINE LEARNING - 82019 - CIS 431 - 001
SENIOR PROJECT - 81358 - CIS 480 - 003

B. Procedures used to evaluate teaching

Student Evaluations
Peer Evaluations
Self reflections

C. Other observations regarding teaching

Spring 2020 observations:

I taught CIS 201 (Computer Science 1; lab and lecture), CIS 410 (Computer Networks) and CIS 430 (Machine Learning). The Machine learning course was being offered for the first time by the department. With the pandemic we had to move all our courses online in March and I chose to conduct the courses asynchronously. This choice was based on my assumption that not all students might have the capacity (including internet bandwidth) to join my classes live.

For the online version of the course, I posted recorded lectures and assignments every week and met with student during 3 hours of office hours every weekday on Discord. The courses proceeded smoothly, but at the end of the semester, I was not entirely satisfied with this approach. The student evaluations did not reveal any problems with my online approach, but I felt that the asynchronous approach resulted in my loss of touch with my students. I was not able to assess in real-time if they understood the materials or not. I believe interactive lectures help both students and professors. So in Fall 2020, I offered my courses with synchronous lectures and I believe that this format worked much better for all of us. I heard back from many of my students that they greatly appreciated synchronous teaching.

Fall 2019 observations:

I taught CIS 201 (Computer Science 1; both lab and lecture), CIS 301 (Theory of computation) and CIS 420 (Databases) in Fall 2019. I made few changes to my previous offerings of these courses, like having pop-up quizzes, by giving practical examples to complement the theoretical lectures and having students to work on real word applications for project. Overall Fall 2019 was a successful semester for me from a teaching perspective.

D. Academic Advising (including procedures used to evaluate advising)

This year I advised 20 students. I set up a campaign on SSC campus tool for students to make appointment for a one-on-one meeting with me for advising. I had face to face appointments in Fall 2019 and online video call appointments on Discord platform for Spring 2020. If students did not attend the advising meeting, I followed up with email reminders. This effort resulted in near complete advising attendance prior to registration deadline. I evaluate their academic progress and spend additional time with those who are having academic performance issues. I inform students about availability of tutors and ask them to reach out to their faculty during their office hours for help. Overall, I maintain a "developmental" style of advising, where I try and listen to students and make them feel warm and welcome in my office and try to avoid being prescriptive, as much as possible.

I assess my advising with open-ended questions to students, such as, "is there anything else I can do to help you with academics", "do you feel like you need more help with planning your courses", "are you comfortable with the plan for your graduation", etc. I also talk to my colleagues, to see if they are doing something that might help me get better in my advising.

II. Mastery of Subject Matter and Scholarly Ability

A. *Research and other scholarly/artistic activities* (Indicate juried/refereed activities).
Include grants proposed/awarded, articles and books submitted/accepted, presentations at professional meetings, performances, shows or productions directed.)

Proposal Submitted to NYSERDA, May 2020

Title: Air quality sensor network for exposure assessment in Environmental Justice area
PIs: Prof. Suresh Dhaniyala, Bayard D. Clarkson Distinguished Professor, Mechanical and Aeronautical Engineering, Clarkson University; Dr. Brian Frank, Section Chief, Emissions Measurement Research Group, NYSDEC, Prof. Supraja Gurajala, Computer Science, SUNY Potsdam; Prof. Sumona Mondal, Department of Mathematics, Clarkson University.
Amount Requested: $500000
Status: Unfunded

Research Presentations:

1. Infection vs Fatality of COVID-19 in New York State: Effects of Demographics and Poor Air Quality. VIJAY KUMAR, Bridget Wangler, Chaya Chaipitakporn, Shantanu Sur, Supraja Gurajala, Suresh Dhaniyala, Sumona Mondal, American Association for Aerosol Research (AAAR) conference, October 2020.

2. Towards Building an Optimal LUR Model for Air Quality Prediction Using Machine Learning Approach. Dinushani Senarathna, Vijay Kumar, Bridget Wangler, Shantanu Sur, Supraja Gurajala, Suresh Dhaniyala, Sumona Mondal, E-RAPS (Research and Projects Showcase) Conference, Clarkson University, Potsdam NY July 2020.

3. Gurajala S., Dhaniyala S., Big Data and Air Quality: Using Twitter Data for Air Quality Monitoring, American Association for Aerosol Research 37th Annual Conference, Portland, Oregon, Oct 14 – Oct 18, 2019.

4. Gurajala S., Data Visualization, Computer Science ACM seminar, SUNY Potsdam, Potsdam, NY, Nov 2019.

B. *Awards and Honors*

Favorite Professor Award by students - Part of Potsdam Appreciation week 2020

C. *Professional meetings attended*

1. E- RAPS (Research and Projects Showcase) Conference, Clarkson University Potsdam, NY.

2. CCI Winter Workshop, SUNY Potsdam, Potsdam, NY, January 22 2020.

3. Completed Online Pedagogy (Session 5) course to facilitate development of the knowledge, skills, and attitudes for effective online teaching and learning

III. University Service

A. *Administrative/committee assignments*

Student Affairs Committee chair
Faculty Senate Executive Committee member.
Computer Science faculty senate representative
Computer Science Board of Advisors meeting

B. *College-related public service* (Include continuing education teaching by course, number enrolled, place, credit hours, consultancies, presentations at meetings)

1. Developed and proposed a new course Data Analysis & Visualization which got approved in Fall 2020. I'll be teaching this course in Fall 2021.

2. Gurajala S., Data Visualization, Computer Science ACM seminar, SUNY Potsdam, Potsdam, NY, Nov 2019.

C. *Community service* (membership, time volunteered)

1. Assisted medical researchers in St. Lawrence Health System in submitting a proposal to PCORI Patient-Centered Outcomes Research Institute to study CTD-ILD connective tissue disease-associated interstitial lung disease.

2. Mentor for Friends of India Association of Clarkson University, 2019 - 2020

IV. Continuing Professional Growth

A. *Professional memberships* (Indicate leadership roles and term of office)

Association of Computer Machinery (ACM), member

B. *Professional meetings attended*

E- RAPS (Research and Projects Showcase) Conference, Clarkson University Potsdam, NY.

C. *Courses, seminars, workshops or degrees completed*

1. CCI Winter Workshop, SUNY Potsdam, Potsdam, NY, January 22 2020.

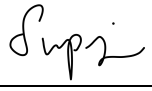
2. Completed Online Pedagogy (Session 5) course to facilitate development of the knowledge, skills, and attitudes for effective online teaching and learning

D. *Describe future goals and plans*

I'm leading the data analytics track for computer science majors and with the Data analysis & visualization course being approved, I developed three courses towards this track. My next goal is to get data analytics track approved for computer science majors.

V. Other Information (Include other activities not covered but which you wish to note)

I'm co-advising three graduate students in Clarkson University with Prof. Sumona Mondal, Mathematics Department. My role is to advise the student on databases and machine learning. This effort requires ~ 5 hours of my time weekly.



Signature Faculty Member

01/04/2021

Date