THE ICLA OBENTO

INTERVIEW WITH DR. ABHISHEK PARIDA

PROFESSOR OF DATA SCIENCE

COURSE LIST:
- INTRODUCTION TO COMPUTER SCIENCE
- INTRODUCTION TO PYTHON PROGRAMMING
- CODING BOOTCAMP: APPLIED PROBABILITY AND STATISTICS
- CODING BOOTCAMP: PYTHON
- MACHINE LEARNING
- MATHEMATICS FOR DATA SCIENCE

The newest program to be added at iCLA, Data Science has been an essential addition to the liberal arts curriculum.

Dr. Parida's courses range from introductory courses specially designed for liberal arts students to in-depth courses for students who are prospective Data Engineers.

With the ever-increasing influx of data generated by users around the world, demand for Data Scientists is rising in industries, organizations, and government entities. Being able to understand, analyze, visualize, and summarize data can pave the way for a meaningful and lucrative career for students.

FACULTY SPOTLIGHT

Q: What sparked your passion for Data Science?
I have a Bachelor's degree in Computer Science, after which I got a job as a software test engineer. Then after working for about a year, I wanted to study General Relativity. So slowly, I moved into Physics. First, I did a Masters in Physics and then pursued a Ph.D. So during my Ph.D., I worked with Gravitational Wave data, which is convoluted. It's not simple like sales data or housing data. And it was during this time that I cared for and valued data in general. Since I had a background in Programming, my supervisors advised me to go into Gravitational Wave Data Science. And that's how I could channel into Data Science. Also, I think that this way, I can showcase my skills which are programming and working with data.

Q: Please tell me what your area of specialization is.
I worked mainly on Gravitational Wave data. Gravitational Waves are exciting predictions of Einstein's General Relativity and are produced by the coalescence of Astrophysical bodies. We have stochastic gravitational waves of Astrophysical origin due to many unresolved sources and stochastic gravitational waves of Cosmological origin. Stochastic is a fancy, technical term for random. My work was to separate these two components from the LIGO (Laser Interferometer Gravitational-Wave Observatory) data. I worked with LIGO collaborators on pipelines for signal processing, parameter estimation, and Sky map making. We use Python and Matlab as our primary languages.

Q: What do you find most enjoyable about your field of study?
If you're talking about programming, it teaches you how to think, not what to think, which is very important. Using programming, you can practically solve any task. For example, the conditionals - how to use Booleans and make a conditional. The if-else blocks - are used to create a decision or rules. Loops - if you want to repeat something. Once you know, you can use them to simulate your own experiment, which is otherwise difficult to do. What you need for writing a code is a good laptop and internet connection; that's it. It is the sheer joy of making things; coding is all about making things that are useful for other people.

Q: What is your message to students who might be intimidated to start studying Data Science?
It takes a considerable amount of time to understand the processes involved in the Data Science domain. But if one is determined, it is their responsibility to work on those hurdles. Having said that, you don't have to know everything from the beginning. You evolve as you do many projects. One should first focus on the programming language(s), e.g., Python. There are many in-built modules in Python that one has to simply import and start using it. If you talk about Machine Learning algorithms, say linear regression, support vector machine, or a decision tree, you don't have to write your own code from scratch. You need to understand how they work, and you need to apply them. So, it is intimidating to understand the concept, but when it comes to implementation, it is not that challenging. Python and R are two programming languages that are open source and are extensively used in many Data Science projects. But, my personal preference is Python because it has a big ecosystem. Apart from leveraging various statistical packages, one can also use Python to build a website or a desktop app or a game, and many more. Python has many applications, not only Machine or Data Science.

Q: Do you recommend students have a foundation before they take your courses or can they begin from zero?
It is always good, at least if you know why you want to pursue Data Science. But definitely, we begin from zeroth level with fundamental courses like Python in the curriculum that we have made.

Q: And for those students who love Data Science, what is your tip for pursuing a deeper understanding of the field?
I would suggest doing as many projects as you can. The traditional approach is something like you complete an entire book on statistics, and then you work on projects. While you're working on a project, it is likely that you will forget some concepts and may have to refer to them again. But we need to change these tactics as things are quickly paced. One can start working on some projects when they have a fair amount of knowledge. Suppose you are studying Python; if you are done with the basics, you can start thinking about how to build a website or a dashboard. When you're doing a project, you'll face hurdles; that way, you'll refine your study more. The more projects you have under your belt, the better. For Data Science, do some exploratory data analysis, and do as many projects as you can. You will get stuck, no doubt, and that is how you learn. This feedback learning is what is required.

Q: Why is it important for students to learn about data science?
Organizations need Data Science, but there's a huge gap. There is a sudden growth in data because of good technology. Data is exponentially increasing. The data collected in the last five or six years alone is bigger (in volume) than the data of the entire humanity in the last hundred or thousand years. It has already created a shortage of people, so one can contribute or work if they have the necessary skills. It is an exciting opportunity to be in Data Science.

To explore more of Dr. Parida's research, click here.

STUDENT SPOTLIGHT

INTERVIEW WITH HALLIE (USA)

4TH YEAR,
POLITICAL SCIENCE MAJOR

This issue's Student Spotlight is 4th-year student, Hallie from the US!
For her 3rd year, Hallie was selected to go on a 1-year study abroad at St. Edmund Hall, Oxford University for being one of the most academically stand out in her class.
Hallie has just finished her final semester, and recently completed her Graduation Research Project (GRP) while juggling her courses and her extra-curricular activities as an iCLA Student Ambassador.

A Political Science major, Hallie's research focuses on East Asian women's politics and Japanese-Korean relations. For her GRP, Hallie researched a Comparative Study on the Effects of American Military Occupation on Domestic Women's Politics in Japan and South Korea.

Q: Looking back at your 4 years at iCLA, what was something you enjoyed most about your time as a student?
I really loved meeting new people. Especially since iCLA gets so many exchange students every semester. You get to make a ton of new friends and go on all sorts of adventures with them. It never feels like you're stuck with the same people. Every time you come back [from semester break], there are new faces, new friends to make, and new things to learn from them.

Q: What is your advice to make the most of student life?
I would say, don't be afraid to go out and try a new thing and go on a new adventure, even if you have to do it by yourself. Some of the best memories I have here were last-minute adventures which were poorly planned with friends that often involved things like taking a train to a city a few minutes away and then a bus up a mountain and hiking to an onsen. It might take the whole day, but it'll definitely be worth it.

Q: What was an experience which was tough but you were glad to have to done during your time studying at iCLA?
I'd say probably working on my Oxford application was one of the most difficult things I did here. While it made it definitely the most stressful semester I ever had at iCLA, it ended up being worth it because I got to have this incredible study abroad experience and gain access to all of these opportunities that will help me after graduation.

Q: You just completed your Graduation Research Project (GRP) presentation recently. Do you have any tips for researching and completing the GRP?
Pick your topic early, and take a lot of care and time into what you want to write about.
Because you're going to be spending a long time researching this topic. If it isn't something you're interested in, it's going to be a very painful semester trying to work through your paper. Also, if you don't think about your research questions well enough beforehand, you might realize that there are problems with how to quantify your data or what sort of things you have access to weeks down the road. And by that point, it is more difficult to fix than if you had taken a little bit more care into it during your seminar.
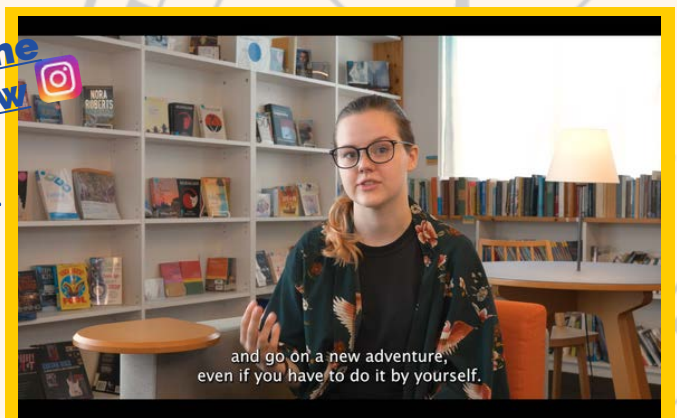
Q: Do you have any tips in terms of deciding what to do after graduation?
When thinking about your next plans after graduation, any decision you make doesn't have to be permanent. So if you decide a few years into working at a corporate job that you do want to go and get a Master's degree, you can. Nothing is stopping you. Getting hung up on what the next perfect decision is, will make your steps after graduation more difficult than they need to be.

Q: What field are you studying in graduate school and what are your career plans?
I'm planning on studying either Political Science or International Relations. And once I finish my master's degree, I plan on going back to the US and sitting for the Foreign Service exam, and hopefully working for the State Department.

Watch the interview

and go on a new adventure, even if you have to do it by yourself.

CULTURE CORNER

NICARAGUA

ANDREA (NICARAGUA)

**2ND YEAR,
POLITICAL SCIENCE MAJOR**

My name is Andrea and I come from Nicaragua. I am currently finishing my 2nd year studying at iCLA, however, this has been my first semester studying face-to-face due to the pandemic.

My country, Nicaragua is located in Central America, and the official language is Spanish. It is a tropical country known as the land of lakes and volcanoes due to its vast existence of them. Nicaragua is a country with an interesting history and culture. There are many festivals that tourists can enjoy, such as traditional dances.

TOP 3 TIPS FOR VISITING

1. The best season to visit Nicaragua is from November to April as this is the dry season, which will allow you to enjoy the sun.
2. Always try to carry water around and wear light clothes in order to remain hydrated.
3. Don't be shy to approach people. Even if you do not speak Spanish, people will be enthusiastic to help with your tourist experience.

MUST-DO, MUST-EAT, MUST-VISIT

Must-do activity: For those interested in volcanoes, there is an active volcano called Cerro Negro characterized by its dark layers of ash and sand coating its slopes, in which you can do volcano surfing. Riders climb the volcano on foot and then descend it while seated or standing on a thin piece of plywood or metal.

Must-eat dish: The major ingredients of the widely popular Nicaraguan meal known as Baho are beef, green plantains, and cassava cooked in banana leaves. The indigenous, mestizo, and Afro-Nicaraguan cultures may all be found in this dish. It is a dish traditionally eaten on Sundays.

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Must-visit place: Granada is one of the oldest colonial cities in Nicaragua. This city is one of the most developed and tourist-friendly places in the country. It is easy to explore and find interesting things to do such as visiting nearby volcanoes, lakes, lagoons, and islets. Moreover, as you walk around you can enjoy the beauty of colonial houses and churches.

INTERESTING DIFFERENCES BETWEEN NICARAGUA AND JAPAN

So far I have noticed that when it comes to tourism, people in Nicaragua are more open to approaching tourists to offer guidance and put more trust in you. For example, someone can approach you to give you directions and in order to guide you, they may put their hand on your shoulder in a friendly manner. On the other hand, in Japan, one is given more physical distance to explore around to avoid disturbing your personal space.

Another thing I have noticed is the difference in punctuality, here in Japan, there is more strictness regarding time. As for Nicaragua, we are more laid-back with this aspect, which leads us to sometimes not being so exact with timetables without it being regarded negatively. We even have a national joke in which we differentiate standard time from "Nicaraguan time," the last one meaning going at your own pace.

THE ICLA OBENTO

UPCOMING EVENTS

World Tour with Words
August 4, 1:00pm – 2:30pm
Play games while speaking in a variety of languages at this event.

Enjoy Summer Vacation!

SOCIAL MEDIA FEATURES

Summer vacation begins. We hope all students have a relaxing break!

The Summer Gala 2022 was an amazing night of performances and art.

The iEXPerience event was held at Kawaguchi Asama Shrine and the Lake Kawaguchi area.

The 19th AltairTanabata Festival was held on campus.

iCLA CONNECT

Are you an iCLA student that wants to connect with other iCLA students?
Get involved in the iCLA community with iCLA Connect.

SIGN UP

RE-CONNECT
Find and reminisce with fellow graduates, see what they have been up to and stay in touch.

EXPAND
Leverage your professional network to get introduced to people you should know.

GET INVOLVED
Join on and off campus events and get involved in YGU community and Yamanashi life.

STUDY ABROAD
Find students from partner universities, connect with each other and get ready for study abroad.