

# CISC UNDERGRADUATE NEWSLETTER



Computer Science News

VOL.2.3

DEC, 2021

FINISH  
STRONG

A graphic with the words 'FINISH' and 'STRONG' in a white, distressed, stencil-like font on a dark grey background. A black and white checkered racing line runs horizontally across the middle of the text.

AND FINALS WEEK WAS BROUGHT TO YOU



Want a CISC  
Department T-Shirt,  
didn't get one initially,  
want another one? Fill  
out [this form](#) to buy a  
CISC Department T-Shirt



## Snacks & Study!

As the end of the semester approaches, we want to celebrate all the hard work that's brought you all to this point! So, on Friday, December 10th from 12:30-2:30, come to Spark Lab for some end-of semester snacks and a study break!

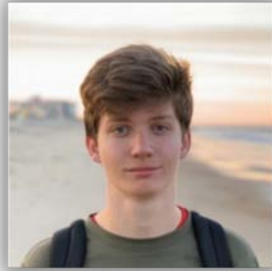


Hope to see you there!

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### STUDENT SHOUTOUTS



Aaron Jarmusch (Engineering - Electrical Engineering BEE/Computer Science/Cybersecurity ) and Nolan Baker (Engineering - Computer Engineering BCPE ) are current research students under Dr.Chandrasekaran and are enrolled in the Vertically Integrated Project (VIP) course. Their research posters got accepted to the premier High Performance Computing conference called "SC21 conference" which happened in November under the Undergraduate Research Poster Category. This is work done with Indiana University as interns funded by NSF REU program. Aaron works on building a validation and verification test suite for the OpenACC Programming model funded by OpenACC/NVIDIA. Nolan works on building a validation and verification testsuite for the OpenMP Programming model funded by the DOE Exascale Computing Project (ECP) SOLLVE: Scaling OpenMP With LLVM for Exascale Performance and Portability.



### FACULTY SPOTLIGHT

With a beard like that, how could he not be a CS professor? Strangely, Prof. Roosens has never taken a college-level computer science course, though he's been "messaging around" with computers since he was a teenager. Part way through his Ph.D. in Mathematics, he realized that what he really liked doing was the "messaging around" that he'd never taken seriously before. That led to his developing a novel method of modeling crystal growth, and a career in the Materials Science and Engineering Laboratory of the National Institute of Standards and Technology where he helped found the Center for Theoretical and Computational Materials Science (as the "tech guy").

Two small children and a 109-mile commute induced Dr. Roosens to find a job at UD (where his wife is a Full Professor of Biology) supporting the ECE/CIS Joint Research Laboratory and teaching a couple classes "for fun". As has become something of a pattern, his hobby has become his career, and he now can be found teaching CISC210 (UNIX and C), CISC260 (assembly), or CISC106.

When not trying to teach himself "teaching", Prof. Roosens enjoys board games, mountain biking, hand-splitting firewood, and annoying his teenage daughters.



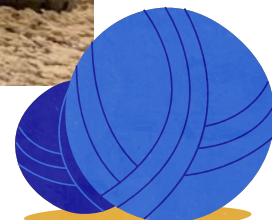
### MEET MOCHI

Professor Mauriello's Purrfect loaf.



### MEET LUNA

Professor Tong's adorable cat.





### CLUB SPOTLIGHT

CS + Social Good is an RSO for students to use computer science for community service projects! Our events include learning about new topics in CS/tech, volunteering for youth outreach, developing a UDance app, getting to know other people in your major over a cup of tea, and more! We meet every Thursday from 6:30pm-7:30pm at Brown Lab Room 205!



### SUMMER RESEARCH

We are excited to announce the second year of our Smart Cities REU (Research Experiences for Undergraduates) program focusing on intelligent transportation systems (ITS), automated vehicles (AV), and vehicle-to-everything (V2X) communication at the University of Nevada, Las Vegas (UNLV). Applications are open now through February 11th, 2022 at: <https://smartcities.sites.unlv.edu/>

They look forward to receiving your students' applications, and if you have any questions, feel free to contact at: [smartcities@unlv.edu](mailto:smartcities@unlv.edu).

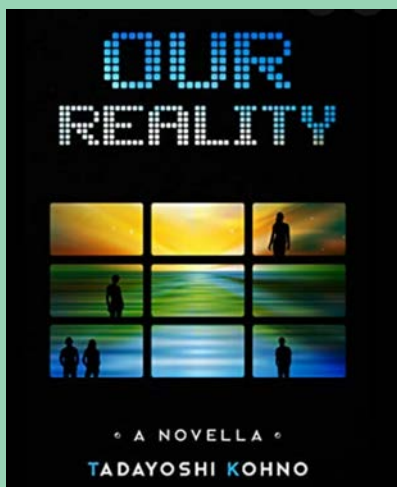
Here is a summary of the program's features:

- 10-week research program: June 2 – Aug 5, 2022.
- Participants receive a \$6,000 stipend.
- Participants are mentored by a UNLV faculty member in the Electrical and Computer Engineering or Computer Science Department.
- Participants will conduct research to address the challenges of building intelligent, safe, and secure Smart Cities with a focus on mobility.
- Participants engage in co-curricular activities with their cohort such as workshops on writing academic papers and presenting research.

Logistics:

- Application deadline: February 11th, 2022 (see the website: <https://smartcities.sites.unlv.edu/>).
- Notification: March 4th, 2022 (students will be notified whether they were accepted into the program).
- Program dates: June 2 – Aug 5, 2022.
- The 2022 program will be held in-person on the campus of UNLV.

### BOOK RECOMMENDATION



CISC 367011 Equity and Inclusion in Computing Innovations recently read and discussed this fiction book called "Our Reality", written by a University of Washington CS faculty, Tadayoshi Kohno. As the author states: Our Reality uses fiction to explore complex and deeply rooted questions, such as: How do individuals and society impact technology design? How do technologies affect individuals and society? In what ways can technology be unjust? What does it mean for a technology to be racist? How can technologies be made just if they are created by flawed human beings in an imperfect society? Our Reality envisions one possible future world. Our real future world might resemble this story or differ completely. How do you want the future to unfold, and what will you do to make your vision a reality? A quick, thought-provoking read! Available in print, kindle, or pdf download here: <https://homes.cs.washington.edu/~yoshi/OurReality.html>





## UNDERGRADUATE OPPORTUNITY

Dr. Decker is looking to find a sophomore with iOS programming experience (WatchOS if possible) We will at the end of Spring be loosing our Apple Watch programmer to the Real World. Our current project (currently in no-cost extension due to covid delays) involves Just In Time Adaptive Interventions (JITAI) for encouraging people to be more active in the moment, based on real-time contextual cues, but there are future NSF and NIH projects in the proposed or planning stages.



## SPRING COURSES

### CISC367: Development of Assistive Technology

If you are interested in learning more about the development of assistive technology to improve the quality of life of users with differing abilities, please consider taking CISC367 - the Development of Assistive Technology. In this course we will be exploring the concepts of Universal Design, or designing with all end users in mind throughout the entire design process. Throughout the course, you will work on a project with someone of differing abilities to create a software-based project or app that will in some way enhance the quality of life of the end user. In addition, you will learn about existing technology, and about how current technology has enhanced the lives of people with differing abilities and how, in some cases, it has failed these users. Please enroll [here](#), or email Dr. Yarrington ([yarringt@udel.edu](mailto:yarringt@udel.edu)) for more information.

### CISC187/CISC366: Social Computing Research Credits

If you are interested in exploring user experience research and engineering while earning course credits then please consider applying to enroll in "CISC187: VIP I (Social Computing)" or "CISC366: Independent Study" with the Sensify Lab. Current projects in the lab cover a range of application areas including: (i) environmental sustainability, (ii) health & wellbeing, (iii) creativity support tools for game developers, and (iv) news media consumption visualizations. While spring scheduling is expected to be flexible, students will need to commit to meeting individually and with their project team throughout the semester while contributing hours to the project commensurate with the number of credits they are enrolled in. If interested in applying, please email Dr. Mauriello ([mlm@udel.edu](mailto:mlm@udel.edu)) with your resume and unofficial transcript for more details.

### CISC 449: a seminar course in Combinatorial Optimization and Approximation Algorithm

If you are interested and curious to learn more about the course, email Dr. Tong ([amotong@udel.edu](mailto:amotong@udel.edu))



# CONGRATULATIONS DR. CHANDRASEKARAN

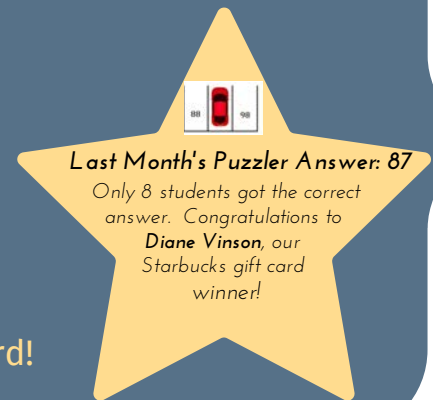
The US Department of Energy’s (DOE’s) Exascale Computing Project (ECP) has named Sunita Chandrasekaran of UDEL and Brookhaven National Laboratory (BNL) as principal investigator of the SOLLVE: Scaling OpenMP With LLVM for Exascale Performance and Portability project. Chandrasekaran has also recently joined the BNL Computational Science Initiative (CSI) as a Computational Scientist as part of the programming models and compiler team. As the new PI of SOLLVE, Chandrasekaran is charged with developing leading-edge parallel programming models and tools in collaboration with the LLVM community and participating high-performance computing system vendors. Among the key project activities is the development of new features for OpenMP on GPU architectures for the upcoming exascale platforms. Frontier, at the Oak Ridge National Lab, installed as we speak and to be fully functional by the end of the year, will be the first exascale system in the world. <https://www.hpcwire.com/off-the-wire/the-exascale-computing-project-selects-sunita-chandrasekaran-as-principal-investigator-of-the-solve-project/>

## CAN YOU SOLVE IT?

STUDY THE PYRAMID CAREFULLY.

		E		
	1110		D	
446		679		681
198	263	431	265	

WHAT ARE THE VALUES OF E AND D?



**Last Month's Puzzler Answer: 87**  
 Only 8 students got the correct answer. Congratulations to **Diane Vinson**, our Starbucks gift card winner!

If you think you know the answer, enter [here](#) - one random correct answer will win a \$15 Starbucks gift card!

### Submit to the Newsletter

Do you have something you would like featured in the CIS Newsletter?

Upload [here](#):  
<https://forms.gle/ZwdKAeZjbAerb1EE8>

### Interested in Applying to the CPUs?

Like what we have done? Want to do something for the CIS department yourself?

Apply [here](#) to join the CPUs!  
 Also link: <https://forms.gle/RRHz49JJtki37QBG8>