CS 1300 Redesign

The Brown CS website provides information for to users interested in learning more about the department. It offers resources for prospective students, current students, faculty, staff, visitors, prospective faculty and staff, alumni, and industry partners, among others.



SEARCH

>

# Computer Science

About

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# Pausch Undergraduate Summer Research Award Applications Are Open

Krishnamurthi And Collaborators Win The SIGPLAN Software Award For Work On Racket Michael Littman Receives Brown's Presidential Faculty Award Brown CS Seeks Applicants For Lecturer Positions Reiss Wins The VISSOFT Most Influential Paper Award

# Introductory

Customized for students of all interests

#### Undergraduate Program

Numerous opportunities to contribute to research and teaching

#### Master's Program

Multiple tracks (thesis, project, coursework) and interdisciplinary options

#### PhD Program

Strong research with low student-faculty ratios

# **CS Blog**

Faculty Afield: Shriram Krishnamurthi And Scientist Colleagues Team ...

The WSJ Ranks Brown Among The Best Schools

Brown CS Researchers Find That Robots Are Often ...

Alum Adventures: Harry Li Helps The Chan Zuckerberg ...

Martha Edwards And Kalvin Lam Win hackNY Fellowships

# **Awards**

Michael Littman Receives Brown's Presidential Faculty Award

Natalie Reed Becomes Brown's Tenth Google Women Techmakers ...

Tim Kraska Wins The VLDB Early Career Research ...

Pombrio, Krishnamurthi Win The PLDI Distinguished Artifact Award ...

Felzenszwalb Wins The Longuet-Higgins Prize For Fundamental Contributions ...

## **Events**

CS For Social Good Seminar Series: Suresh Venkatasubramanian

Talk: Felice C. Frankel Wed, 10/17 4:30-5:30PM, CIT, Room 368

Tue, 10/16 1-2PM, CIT 368

Talk: Michael Greenberg Fri, 10/19 12-1PM, CIT 368

Tech Talk: Citadel and Citadel Securities Wed, 10/24 5:30-6:30PM,

CIT, Room 368

Talk: Thomas Ryden Thu, 11/1 12-1PM, Lubrano Conference Room

#### News

Michael Littman Receives Brown's Presidential Faculty Award

Shriram Krishnamurthi And Collaborators Have Won The SIGPLAN Software Award For Work On Racket

Steven P. Reiss Wins The VISSOFT 2018 Most Influential Paper Award

Applications Are Open For The Pausch Undergraduate Summer Research Award

Distinguished Lecture: Jennifer Rexford Analyzes Successful Collaboration In Computer Networking Interdisciplinary Work

Computer Science at Brown University Providence, Rhode Island 02912 USA Phone: 401-863-7600 Map & Directions / Contact Us



#### About > Events



#### **Events**

#### Events Schedule for the Next Three Months:

Tuesday, October 16 1:00PM - 02:00PM, CIT 368

The computational and ethical ramifications of automated decision-making in society

Suresh Venkatasubramanian, University of Utah Host: Professor Seny Kamara

Wednesday, October 17 4:30PM - 05:30PM, CIT, Room 368

**More Than Pretty Pictures** 

Felice C. Frankel, MIT

Host: Professor David Laidlaw

Friday, October 19 12:00PM - 01:00PM, CIT 368

#### Rehabilitating the POSIX shell

Michael Greenberg, Pomona College

Hosts: Shriram Krishnamurthi, Theo Benson, Rodrigo Fonseca, and Tim Nelson

Wednesday, October 24 5:30PM - 06:30PM, CIT, Room 368

#### **Citadel Tech Talk**

We are pleased to announce that Citadel will be hosting a career night focused on helping you find your ideal employer. Justin Pinchback, Head of Talent Strategy for Citadel will be presenting on Wednesday October 24th in CIT 368. Justin will offer general coaching and advice drawing from his experiences at Bain & Co., Goldman Sachs, Bridgewater Associates and Citadel.

For those interested in roles in technology, finance, quantitative science, capital markets or consulting we encourage you to attend (register here). The presentation will cover:

- Identifying your drivers
- Considering company characteristics
- Debugging your short list
- General tips, tricks and advice, as well as
- Practical do's and don'ts when conducting your search

All undergraduate, graduate and post doc students from all backgrounds are invited to attend. Those interested in roles at Citadel and Citadel Securities are strongly encouraged to attend as members of Citadel's campus recruitment team will be present.

RSVP: https://brown.joinhandshake.com/events/214041

Host: IPP

Thursday, November 1 12:00PM - 01:00PM, Lubrano Conference Room

**HRI Design Considerations For Robotics Systems** 

Thomas Ryden, MassRobotics Host: Stefanie Tellex/HCRI **Browse Events** 

#### **Lecture Series**

**Distinguished Lecture Series** 

Kanellakis Memorial Lectures

Life After Brown Lectures

#### **Special Events**

Computer Science Reunion

Friday November 2 3:00PM - 05:00PM CIT 368

= BROWN	SEARCH	>
Computer Science About People Research Degrees  Home * About the Department * Rooms	Courses Diversity Giving	
	ab • Library • Lubrano • Atrium3 • Atrium4 • MSlab • Sunlab	

#### Rooms

This page lists the rooms that we use to hold classes, TA hours, labs, and many other scheduled events. A few Brown CS-operated classrooms and labs have their own web pages with information for the people who use them.

STUDENTS: If you want to reserve CIT 368, 477, 316, or 506 for meetings during the semester, all reservations held between 9:00-5:30 Monday through Friday will need to wait for confirmation until after shopping period has ended. Reservations outside those hours (or during the hours of 9-5 after the end of shopping period) will be managed on a first come, first served basis.



#### CIT 143, The Sunlab

A lab consisting of 73 Maxbuilt PCs running Linux and two running Windows 7, the Sunlab is the primary computing resource for computer science undergraduates. The lab is available days and evenings (and sometimes around the clock).

Schedule (Contact problem at cs.brown.edu to reserve)

Capacity: 135

#### CIT 165, Motorola

A lecture hall with rows of seats. Often used for lectures, recitations, and review sessions.



#### CIT 167, The MSLab

A classroom and cluster of Maxbuilt PCs running Mac and Linux. The MS-Lab is a common location for large labs and for courses which use Mac.

Schedule (Contact problem at cs.brown.edu to reserve)

Capacity: 22

#### CIT 201, Undergrad Computing Lab

A large room with Linux Machines and also desks with monitors, keyboards, and mice that students can book their laptops up to. This room follows the Sunlab hours.

## **Industry Partners Program**

Advantages • About Brown CS • Become a Partner • Current Partners • Symposia • Tech Fair • Membership Levels

The Department of Computer Science at Brown University offers corporations and non-profit organizations exceptional opportunities for productive collaboration with a leading academic research institution.

The Department is committed to progress in research and the transfer of state-of-the-art technologies beyond the campus. It is also committed to informing students and faculty about opportunities in industry. Strong, mutually beneficial links with leaders in computer-related industries will advance these goals.

The Industry Partners Program exists to provide opportunities for interaction with the corporate and non $profit\ information\ technology\ communities.\ Industry\ Partners\ are\ introduced\ to\ the\ Department's\ research$ and development efforts and to our students. We seek to develop relationships with a limited number of Partners who share an interest in supporting faculty and students.

The full scope of the Department's research interests are listed

Member institutions are encouraged to recruit our students, participate in the selection of topics for our IPP symposia, and advise on the employment and research needs of corporations. The IPP Director and the Program Manager stay in regular contact

with participating companies, arrange campus visits, identify faculty to serve as consultants, and respond to specific requests.

Students: If you want to receive notifications of IPP events please click this link to be added to the mailing list: http://bit.ly/brownipp

Click here for upcoming IPP events

Recruiting policies (1.0 MB) .

#### Recruiting Events

Shriram Krishnamurthi: general advice on a graduate research career Thu, 10/18 12-1PM, cit 368

Summer Panel Session Wed, 10/24 3-5PM, cit 368

Wed, 10/24 5:30-7PM

FBI Info Session

Thu, 10/25 5:30-6:45PM

Google PhD panel session Tue, 10/30 5-6:15PM, cit 368

Job Listing

**Transposit Software Engineer** Sep 21, 2018 —

Software Engineer

Degrees > Undergraduate Program



## Our Undergraduate Program

This page is for prospective undergrads. (Currently-enrolled students, go here or use the links in the orange bar above.)

Our undergrads have flown to Singapore to install software they designed for the Nobel Museum, built their own SMS-based commodity exchange to help farmers in Ghana, and more. They know what it's like to hear a professor say this about an undergrad teaching assistant: "I feel like I can absolutely treat her as a peer."

Other schools are dealing with growing interest in CS by capping the number of students who can major in it. We've never done that: instead of turning applicants away, we've planned to keep growing, putting in place new programs to help firstgeneration and low-income students.



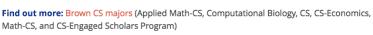
After you read the testimonials below, check out some reasons to study CS at Brown, watch a video of CS majors answering questions from prospective students, look at our majors, read undergraduate honors theses, or apply.



"Everyday I'm inspired by the creative and innovative thinking ... faculty mentorship across departments, the strong alum network who work at startups and tech giants alike, design resources at RISD, the Providence tech community, and student organizations like Hack@Brown and the Entrepreneurship Program are all catalysts for student entrepreneurs." Athyuttam (Atty) Eleti

Find out more: student organizations (Hack@Brown, Department Undergraduate Group, Women in Computer Science, Mosaic+)

"I'm concentrating in Math-CS. It's one of several joint majors that allow students to pursue in-depth study in both CS and another area — as well as exploring how the subjects interact. Math-CS has given me a greater degree of flexibility in my course choices; it has allowed me to both focus on more theoretical aspects of computer science and to increase my level of mathematical maturity." - Eli Rosenthal





"Doing CS research has been one of the most rewarding aspects of my time at Brown. It's allowed me to make meaningful relationships with my professors and with grad students in the department, and has taught me how to work in a self-directed way on projects I get to define myself...professors are open to mentoring an undergrad, and doing research at Brown also opens up opportunities to work with other universities around the country." — Danaë Metaxa-

Find out more: undergraduate research

"Being an undergraduate teaching assistant (UTA) has been an incredible opportunity for me to grow...Through my involvement with the UTA program, I have gained incredible mentors (professors, head TAs) and wonderful friends (fellow TAs on several different course staffs). I think the program truly reflects the culture of collaborative learning at the heart of a Brown CS education." — Jaclyn Zhong

Find out more: the UTA program and other undergrad jobs

We pioneered the idea of undergrads contributing to teaching and research at a time when few universities even offered CS courses. Today, no other institution gives students the same opportunities to be part of the university's intellectual life, benefit from a community of collaborators, and advance the field.

"I never want to stop being a Science TA."

"My advisor has been a constant anchor, a mentor, a friend...Late nights in the graphics lab allowed me to see how CS could connect with other disciplines and Brown Computer Brown's honors program allowed me to experiment with my first truly interdisciplinary research project."

— Mike Frederickson. Technical Director

- danah boyd, Microsoft Principal Researcher and Data and Society Founder

Part 1
Please see Lo-Fi.png in attached folder for five lo-fi redesigns and navigation.

Write-Up:

	Original interface	Redesigned interface
Intuitive	With a lack of icons/clear visuals,	Calendars and calendar icons have been
Design	too little whitespace, and cluttered	added to several different site pages
	layouts, it's often hard to quickly	where events or room reservations are
	identify what information appears	being highlighted so users can more
	on any given page.	quickly identify what they're being
		shown. The layout has been cleaned up,
		especially with the use of additional
		spacing (e.g., the "Undergraduate
		Degree" and "Rooms" pages).
Ease of	While it's obvious what the search	The number of links in the main navbar
Learning	bar and main navbar are meant to	has been cut down and sub-submenus
	be used for, there is often so much	have been added to the submenus to
	going on in the header of any given	make the content easier to digest (see
	page (e.g., the current "Industry	how "About" > "Facilities" expands into
	Partners Program" page) that much	"Rooms" and "Services" when clicked,
	of the site content is hard to locate.	as indicated on the homepage). The
	There is also a fair amount of	hamburger menu that links to specific
	redundant information throughout	pages on the Brown University website
	the site (e.g., all "Awards" are also	and other redundant/unnecessary
	listed under "News"), which adds	content (e.g., the "Awards" section of
	unnecessarily to the cognitive load	the homepage) were removed, and the
	of users trying to learn to navigate	remaining content in the site header was
	the site.	consolidated and placed in a single
		horizontal line. Breadcrumbs now
		appear in their own section directly
		beneath the header and any page-
		specific links that appeared at the top of
		any particular page have been moved
E.C C		elsewhere.
Efficiency of	The fact that there are dropdown	A "Quick Links" section would added
Use	submenus for the links in the	to certain pages (e.g., the "Industry
	navbar that have subpages often	Partners" page) and removed when they
	makes the site faster to navigate	weren't appropriate for a particular page
	than, say, having to go to a page like "About" and then click a link	("Undergrad Program"), and redundant,
	that only appears on that page to	unnecessary information (e.g., the links for current students on the
	get to "Rooms." The page-specific	"Undergraduate Program" page) were
	links at the top of pages (e.g., on	cut. The fact that calendars were
	the current "Undergraduate	integrated into multiple pages where
	Program Page" or "Industry	appropriate means users don't have to
	rrogram rage of moustry	appropriate means users don't have to

	Partners" page) often hard to read through in part because they're next to the already messy header and are laid out horizontally. The links for current students in the orange box atop the "Undergraduate Program" page, in particular, distract from the page's main purpose (to inform prospective undergrads about the department), as does the blue disclaimer directly below the same that says the page is for prospective undergraduates, not current students.	click an additional link when they want to view a schedule pertinent to the page they're currently on. The addition of a filter for the calendar on the "Events" page (to be used for "Distinguished Lecture Series" events, for example) saves the user additional clicks.
Memorability	Given the number of options users are presented with in the main navbar/its accompanying submenus and the fact that so many of the website's subpages (e.g., those linked to on the "Industry Partners Page") are only accessible through other subpages (i.e., through the "Industry Partners Program" page in the above example) makes it fairly difficult to remember how to navigate back to certain pages on future site visits. There is often also a lack of consistency between the links to and headers on a given page (e.g., one has to click on a link for "Partners" under "About" in the main navbar to get to the "Industry Partners Page").	Certain links in the navbar were removed, and certain subpages (e.g., the reservation schedule page for the Sunlab) that were only accessible through other subpages (e.g., the "Rooms" page in the above example) were consolidated into the single subpage through which they were accessible (e.g., the Sunlab reservation calendar was integrated into the "Rooms" page). The links to and titles of different subpages (e.g., the link to and header of "Industry Partners") were made to match one another.
Error Frequency and Severity	There are numerous broken links on the site, including the "Interdisciplinary" link under "Degrees" in the navbar. The disorganization of the same navbar means that users may end up failing to find the page they want at all or else end up on the wrong page. Although breadcrumbs do appear on nearly all site pages, they do not always provide the user with a link back to "Home."	All broken links have been removed, the navbar and its submenus have been streamlined, and the breadcrumbs on all pages include a link back to "Home."

Subjective	Design is often way too cluttered	Design is made (a) cleaner through the
Satisfaction	(as on the top of the "Industry	use of whitespace and removal of
	Partners Program" page) or	redundant content and (b) more
	haphazard (e.g., on the	consistent from page to page. More
	"Undergraduate Program" page).	photos were added (on the "Events"
	There is often too little white space,	page, for example) and larger photos
	repetitive content, and inconsistent	were used (e.g., on the "Undergraduate
	design choices (compare the	Degree" page).
	separating lines in "Rooms" with	
	the lack thereof in "Undergraduate	
	Program"). The photos are often so	
	small that it's hard to tell what's	
	being shown.	

Part 3
Please see Hi-Fi.pdf for redesign.

Justification: By using a three-column grid instead of the sometimes four-column/sometimes three-column layout (as is currently used on the Brown CS homepage), readability has been improved somewhat because more text can now be fit into each column. (The layout was also chosen so as to retain the same look with minor changes in content.) Alignment has also been improved; for example, there are no issues like the Brown hamburger menu cutting into the page margin in the header (as is currently the case). The color palette was cleaned up by using a much smaller range of colors (four in total, with three gray scale tones and a single red tone as an accent color to parallel the red found in the Brown logo at top left). The red tone was used to highlight primary points of interest on the page, including the link to "News" (which was felt to be the most important content on the Brown homepage given that the contents of the home page appear duplicated in a section above all the other content) and the "Sign In" link in the footer (which is important for internal use but not important enough that I thought it made sense to move it out of the footer). The navigation flow has been consolidated by narrowing the total number of options in the main navigation bar from seven down to five and eliminating the hamburger menu that's specific to the general Brown University website, as opposed to the CSspecific site. Apart from the font of the site title (Didot), only a single font (Avenir Next Condensed) was used throughout the page; it was chosen both because it was legible, combined well with Didot (Avenir Next Condensed was designed by a designer who revitalized Didot), came in many different weights (of which four different weights were used), and had more of a sense of gravitas than the Bree Serif font currently used on the Brown CS website.

# Part 4

Please see AnnotatedHi-Fi.pdf for annotated mockup and redesign.html for webpage.

Justification: Mobile- and tablet-sized versions of the site feature a hamburger menu that—when clicked—opens up the navigation links in a vertical dropdown below the main header. Based on the visual flow patterns we looked at in class, it is appropriate for the hamburger menu to appear to the right of the site title and have the dropdown navigation directly below that since a user would typically scan the upper left-hand corner before scanning the upper-right and would move

somewhat lower and to the left after that. In the vertical dropdown, we have the search appear below all the other elements because we would hope users would review all the links before trying to search the site for what they're trying to find.

Laptop- and desktop-sized versions of the site allow for us to streamline the site title, links, and search bar all into a single line and they appear in that order because, again, a user's eyes are expected to scan the page from left to right.

The hero image just below the header always stretches to fill the width of the container for all the content on the page.

The main content appears in two columns on laptop-sized screens and up because we wanted both "News" and "Events" to appear above the fold. "News" appears to the left (where users can be expected to look first) since it is probably somewhat more important (given how it currently appears on the Brown CS website and similar CS department websites for other schools). To make it more likely that users also see "Events," the column beginning with "Events" is twice as wide as the "News" header (and, for that reason, does not exactly appear in the same spot that ads normally would in a two-column layout). This two-column display changes to a one-column display for mobile and tablet (where it would be harder to fit content inside two containers rather than just one). Again, because "News" is of slightly higher priority, it superimposes the column beginning with "Events," so users can be expected to see this information first. Also, when it superimposes "Events," the last two of the five headlines that are otherwise shown in the news section are hidden so that the "Events" section appears higher on the page than it would otherwise.

On 4K screens, "Degrees" and "Blog," which normally appear in the same column as "Events" get broken out into a third column of width equal to that of "Events." By breaking this content out into a third column and heading that column with "Degrees" (so it appears above the fold), the layout affords almost as much priority to "Degrees" as it does to "News" and "Events" and allows us to more easily present the user with additional information at a screen size where the information would not appear too cluttered. Furthermore, because the columns for (1) "News," (2) "Events," and (3) "Degree/Blog" now each take up a third of the width of their container, our content still appears in a three-column grid. In this layout, the two images that normally appear in a row at the top of the "Events" section are made to appear on top of one another instead, so that the amount of content in the column containing only "Events" is closer in length to that of the "News" column and the "Degrees"/"Blog" column.

The whole page's content container plus each of the three columns therein are also made bigger on 4K screens so as to improve readability.

On laptop-sized screens and up, there is enough horizontal whitespace to spread the footer content across three columns (and in, fact fit the last two of these columns to the left and right of the rightmost third of our grid). On mobile and tablet, there is too little horizontal whitespace for the same, so the content of all three columns is made to appear in a single column instead.