



Inspirational Teacher dinner, hosted in the Microsoft Atrium in the Paul G. Allen Center for Computer Science & Engineering

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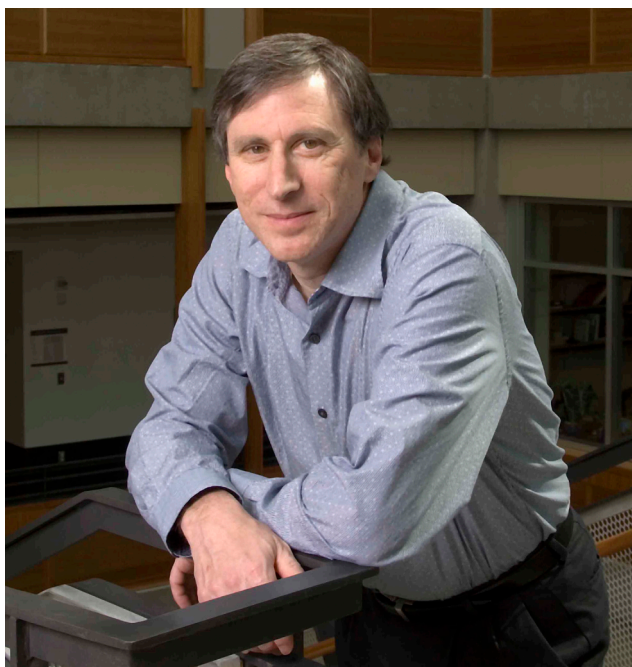
CSE recognizes inspirational teachers

Every top college student remembers one or two teachers from high school or community college who had a huge impact on his or her educational pursuits. Each year we ask our incoming students who those teachers were: "Who were the teachers who really shaped your life?" On May 9th, CSE hosted a dinner for these inspirational teachers, their spouses, and the CSE students who nominated them.

Congratulations and thanks to the teachers nominated -- teachers who change students' lives and send us a steady stream of phenomenal UW CSE majors!

School	Nominated Teacher	School	Nominated Teacher
Auburn Riverside High School	Scott Rowe	Cedarcrest High School	Bruce McDowell, Michael Miyoshi
Bellevue Community College	Tony Aklaghi, Art Goss, Kevin Wheelock, Shuang-chiu Wang	Clark College	James Cowen
Bellevue Int'l School	Bob Ellis	Cleveland High School	Terry Cornelius
Bethel High School	Wyley Beatty	Columbia River High School	Gary Lorentzen
Bothell Senior High School	David Hansen, Marjorie Korkowski, Sherman Williams	Eastlake High School	Marc Clauson
CAM High School	Eric Albers, Lori Eby	Eastside Catholic	MaryMargaret Welch

from where I sit...



It is hard to believe that the academic year is nearly at an end. My first year as chair is over as well. The most exciting part of the year was seeing first hand all of the hard work of our students, staff, alums, and friends who are contributing to our success. It was great to meet a huge number of friends from the past. In particular, we had two wonderful events last month for our former students: one at the Computer History Museum in Mountain View, CA, and a second at the Bellevue Arts Museum across the lake. In Mountain View, we heard from Matt O'Donnell, the new Dean of Engineering; and at both events our new faculty member Yoshi Kohno talked about his exciting work in computer security. If you weren't able to attend this time, I hope you can make it next year.

I'm very optimistic about the future of CSE. We have hired great new faculty in the past few years, and we're hoping to grow significantly in the future. We are also looking to expand our educational programs in important new ways at both the graduate and undergraduate levels. I hope to tell you more about these new programs in a future issue.

Have a great summer!

Henry M. Levy
Chairman and Wissner-Slivka Chair

(Continued from front page)

inspirational teachers

School	Nominated Teacher
Edmonds Community College	Niko Culevski, Jerry Huri
Everett Community College	Bob Killingstad
Everett High School	Jane Johnson, Gordon Little, Bill Morgan
Henry M Jackson High School	David Friedle, Mark Hinckley, Nick Nicoletta
Inglemoor High School	Kelly Haupt, Pam Lowry
International School	Dick Beishline
Issaquah High School	Tom Haff, Ken Ruud, Tom Saxton, Vale (Crain) Baxter
Garfield High School	Richard Piccioni, Paul Spangenberg, Laura Strentz
JFK Memorial High School	James McBride, Paul McMillen, John Wright
Juanita High School	Lisa Dodd, Gary Haldane
Kent-Meridian High School	Scott Huck
Kentridge High School	Steve Brown, Beverly Henderson, Tom Robinson, Al Waltner, David Wright
Lakeside School	Irene Barinoff, Liz Gallagher, Jabe Blumenthal
Liberty High School	Mark Buchl
Mercer Island High School	Dino Annest, Curtis Johnston, Dottie Simpson
Moses Lake High School	Kristy Swartz
Mount Rainier High School	Tom Tosch
Mountlake Terrace High School	Gil Comeau
Naches Valley High School	Brian Herting, Harvey Robicheau
Nathan Hale High School	Brian Coon
Newport High School	Jeff Mason
North Central High School	Randall James
No. Seattle Community College	Davene Eyres
North Thurston High School	Rich Horger
Olympia High School	Jay Elder, Richard Robinson, Jan Stuckey
Palos Verdes Peninsula High School	Jim Casaburi, Michael Spalding, Glenn Van Enk
Port Townsend High School	Rick Nelson, Marcus Sather, John Van Ackeren
Prosser School	John Colgren, Dean Smith, Keith Wells
Redmond High School	Michael Osbourne Catherine Michaelis, Peter Saxby
Richland High School	Dave True
Robert A. Long High School	Brian Cohen, Gail Mezger, Jan McIntyre
Roosevelt High School	Dan Frederickson
Royal High School	Virginia Donohue, Bob Willging
Seattle Central Comm. College	Francois Lepeintre
Sehome High School	Jack Crandall, Judson Swets
Skyview High School	Bob Brands, Karen Hall, Carol Hattan, Carol Ramsey
Southridge High School	Jessica Baker, Ross Duran, Gretchen Hull
Stadium High School	Dennis Dale, Shawn McDougall
Sunnyside Senior High School	Wayne Cone
Tacoma Community College	Keith King, Rebecca Sliger, Wally Orchard
Walter Johnson High School	Mark Whipple
Westlake High School	John Agosta
Westwood High School	Steve Bratteng
Woodinville High School	Bob Connell

CSE's Aseem Agarwala recognized in ACM Doctoral Dissertation Award competition



Each year, the ACM Doctoral Dissertation Award recognizes the best few doctoral dissertations worldwide in computer science. Fifty-five dissertations were nominated this year, and, as always, the competition was intense. The committee selected one winner and one runner-up; both were in computer graphics. The winner

was Ren Ng from Stanford. The runner-up - receiving the sole Honorable Mention - was our very own Aseem Agarwala, for his dissertation, *Authoring effective depictions of reality by combining multiple samples of the plenoptic function*. This is a huge accomplishment: Congratulations to Aseem and also to his advisor David Salesin and UW's superb graphics group!

Aseem completed his PhD in June 2006 and joined Adobe Systems, Inc. as a researcher. He is also an affiliate assistant professor in CSE. His areas of research are computer graphics, computer vision, and computational imaging. Specifically, he researches computational techniques that can help us author more expressive imagery using digital cameras. Some of the research in his winning thesis is now implemented as a feature in the newest version of Photoshop CS3. The feature, called "auto-blend layers," is most commonly used for panoramic stitching.

Past CSE winners include: CSE Ph.D. alumnus AnHai Doan (faculty member at the U of Wisconsin) received the ACM Doctoral Dissertation Award in 2003. CSE faculty member Venkat Guruswami received the ACM Doctoral Dissertation Award in 2002 for his MIT dissertation. CSE Ph.D. alumni Mike Ernst (faculty member at MIT) and William Chan (tragically deceased) were co-runners-up in 2000. CSE Ph.D. alumnus Anne Condon (faculty member at the U of British Columbia) was runner-up (then called "Series Winner" rather than "Honorable Mention") in 1988. CSE faculty member Carl Ebeling was runner-up in 1986 for his CMU dissertation.

we want to hear from you!

Have news you'd like to share with the CSE community?
Have comments or suggestions for future issues of MSB?

Let us know! Email the editors at:

msb@cs.washington.edu

and be sure to visit us online at:

www.cs.washington.edu

Pravin Bhat, Seth Cooper win NVIDIA graduate fellowships

NVIDIA Corporation, the Santa Clara-based programmable graphics processor technologies company, named twelve recipients of the NVIDIA Fellowship award (\$25,000) for the 2007-08 academic year, including UW CSE Ph.D. students Pravin Bhat and Seth Cooper.



Pravin Bhat is a third year graduate student. His research interests include computational photography and video. Recently, he has been interested in the large quality gap that exists today

between consumer photographs and consumer video. For example, it is now commonplace for amateur photographers to capture high quality photographs with reasonably priced hardware and edit them with easy-to-use software. In contrast, ignoring extremely expensive equipment, video tends to be of lower quality and more difficult to edit than photographs. His current research goal is to help bridge this gap between videos and photographs. Toward this end, Pravin has been working on algorithms that can enhance and edit videos using minimal user effort.

In his third year of graduate study, Seth Cooper has focused much of his work thus far on human motion for interactive applications like games. The two main projects he worked on involved simulating large crowds in real-time using a continuum approach and interactively constructing real-time character controllers to reduce the amount of data needed. Seth currently is working on a protein folding game to utilize people's problem solving ability to solve difficult protein folding problems, which he will focus on over the summer.



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Past and present issues of MSB can be downloaded from:
www.cs.washington.edu/msb

datagrams

Lazowska, Reges recognized for teaching

In May, the UW CSE ACM Student Chapter recognized Ed Lazowska as the winner of the 2006-07 ACM teaching award, and Stuart Reges as runner-up. Said Lazowska, "I'm honored. But I've been teaching CSE 451 since 1984. I'm mortified that it took me so long to get it right."

CSE's Sam Burden, Sam Whittle excel in Mathematical Contest in Modeling

From the 949 entries, eleven 3-person undergraduate teams were chosen as "Outstanding Winners" in this year's Mathematical Contest in Modeling. Two of those teams were from the UW. Each team included a CSE major: CE junior Sam Burden (from Spokane, WA), and CS junior Sam Whittle (from Bellingham, WA). Professor of Mathematics Jim Morrow coaches UW's MCM teams.

Richard Anderson, Richard Ladner, Adrien Treuille win UW College of Engineering "Community of Innovators" awards

Richard Anderson was named the "Faculty Innovator for Teaching." Richard Ladner's AccessComputing Alliance received the "Team Award." Adrien Treuille received the "Research Assistant Innovator" award. Congratulations to Richard, Richard, and Adrien!

Seniors name Arendt, Lee as favorite TAs; Lazowska, Oskin, Reges, and Stepp as favorite faculty

During Winter quarter, the UW Alumni Association asked the Class of 2007 campus-wide to name their favorite professor, lecturer, or TA of their undergraduate career. Two UW CSE TAs were honored by being named: undergraduates Eric Arendt and Shen Lee. Four UW CSE faculty were recognized: Ed Lazowska, Mark Oskin, Stuart Reges, and Marty Stepp. Congratulations to these instructors, and thanks to the students who cared enough to nominate them.

Mercaldi, Nguyen recognized in Google Anita Borg Memorial Scholarship competition

CSE graduate student Martha Mercaldi has been named as one of 20 recipients of a \$10,000 2007 Google Anita Borg Memorial Scholarships for outstanding female undergraduate and graduate students completing their degrees in computer science and related fields. "The Anita Borg Scholarship is a living testament to Anita's vision of supporting and recognizing exceptional women in computer science and technology." CSE graduate student Bao Nguyen received a \$1,000 award as one of 30 highly qualified finalists. More than 250 students from 115 different universities across the nation competed for recognition in this year's program. Last year,

UW CSE graduate student Michelle Banko received a Borg Scholarship.

Chris Diorio named national "RFID Visionary of the Year"

CSE's Chris Diorio, co-founder (with his Ph.D. advisor Carver Mead) of Impinj, has been named national "RFID Visionary of the Year" -- the "individual with the greatest impact on the industry, through sharing his or her vision and championing the value of RFID technology."

Six CSE students and alums receive 2007 NSF Graduate Research Fellowships

Current graduate students Nick Murphy and Kate Moore, current undergraduate Ben Hindman, and recent undergraduate alumni Jenny Yuen (now at MIT), Diane Hu (now at UCSD), and Kai Wang (committed to UCSD) received this most prestigious graduate student recognition.

CSE scores big at WSA Industry Achievement Awards

The 1000-person Industry Achievement Awards banquet of the Washington Software Alliance is the high point of the year for Washington's IT companies. Six awards are given. This year, UW CSE scored big: UW CSE spin-off Farecast, founded by UW CSE faculty member Oren Etzioni, was named "consumer product of the year," and UW CSE faculty member Chris Diorio, founder of RFID technology company Impinj, was named "technology innovator of the year." Congratulations to Oren, Farecast, Chris, and Impinj!

Lazowska named chair of Computing Community Consortium

In his new role, Dr. Lazowska will lead the CCC -- a consortium of experts drawn from and chosen by the computing research community -- as it seeks to stimulate scientific leadership and vision on issues related to computing research and future large-scale computing research projects. The CCC, established by CRA in partnership with NSF, will catalyze the computing research community to debate long-range research challenges, to build consensus around research visions, to articulate those visions, and to develop the most promising visions into clearly defined initiatives.

Sloan Research Fellowships to Blanchette, Doan, Agrawala

2007 Alfred P. Sloan Research Fellowships have been awarded to UW CSE Ph.D. alums Mathieu Blanchette (Assistant Professor at McGill University) and AnHai Doan (Assistant Professor at the University of Wisconsin - Madison), and to UW CSE Affiliate faculty member Maneesh Agrawala (Assistant Professor at UC Berkeley). Fourteen UW CSE faculty have received Sloan Research Fellowships.

Continued on page 7



The Husky Promise inspires Cathy and David Habib to open CSE's doors to additional deserving students

Commitment to public education, and to the University of Washington, is a passion for Cathy and David Habib, who both earned computer science degrees here in 1986. Their family line is infused with purple and gold. David grew up in Bellevue and both his parents and brother are UW grads. Cathy hails from a military family and lived in such disparate places as Alaska, Georgia, and Germany, but her parents are Puget Sound area natives, her father earned his MBA at the UW, and her brother is an alumnus. "Seattle was the closest thing to home, and drew me back for college," Cathy says.

The Habibs have turned their enthusiasm for UW and CSE into a lasting legacy for students: the David and Cathy Habib Endowed Scholarship in Computer Science & Engineering. Their \$120,000 gift drew an additional \$60,000 through the UW's Students First matching challenge initiative and brings CSE's Students First endowment count to nine.

After establishing a family foundation in 2000, the Habib's first major gift to CSE was a big one — \$500,000 for The Allen Center capital campaign. Then last fall, they learned about the Husky Promise to open the University's doors to students who could not enroll without financial assistance.

"We are excited that any smart student can attend the UW and get a great education without financial hurdles. So many students put college funding together piecemeal through grants, scholarship aid, and by working part-time,

Campus community onboard for Campaign UW

The campus community is rallying behind Campaign UW as it moves into its final year. To date, the Faculty-Staff-Retiree Campaign for Students has raised more than \$5.5 million campuswide through gifts, pledges, and matching UW funds.

"Nine current and emeritus CSE faculty have made gifts that will expand educational opportunities for our undergraduate and grad students," said CSE chair Hank Levy. "Strong inside support means a lot to the department and to students."

Under the FSR Campaign, the University will provide a 1:1 match for UW faculty, affiliate faculty, staff, and retiree gifts of between \$5,000 and \$10,000 to undergraduate or graduate student support endowments. Donors can fulfill these gifts over as many as five years.

Faculty, staff, and retirees can learn more about the FSR Campaign: www.cs.washington.edu/campaign/fsr.html, or contact Ed Lazowska, lazowska@cs.washington.edu.

so it's a challenge for them to get through," David says. "We are especially concerned about high school students who might not even consider college because their families can't afford the tuition," Cathy adds. "Students First could motivate them to work hard, get good grades, and aim for the University of Washington."

As UW juniors, the Habibs met in an EE class and found they shared many interests. After graduation, Cathy worked for five years in the user interface section of Hewlett Packard's instrument division in Everett. The long commute from the Eastside drove her to change corporate lanes in 1991, when she joined Microsoft's Word group. Four years later, a baby and full-time motherhood beckoned. Daughter Rachel is now 12 and son Jason is almost 10.

David headed straight to Microsoft after graduation, worked there for 14 years, first on Windows, then the initial version of Access, and then on Visual Studio. About seven years ago he established a technology consulting business focused on database applications and web development for small nonprofit organizations. Many are community social service agencies. He recently volunteered time to one that sponsors after-school programs for children from low-income immigrant families. "We reviewed students' applications for \$1,000 scholarships. Their stories are incredible," David says.

Supporting public education on all levels is a high priority for the Habibs. Both their children attend public schools, and Cathy volunteers at an elementary school where many students speak English as a second language and may not get much help at home to develop their reading skills.

"Our computer science degrees enabled us to go on to successful careers and financial well-being, so we are proud to support CSE," Cathy says. "It will make us happy to know that students are benefiting from the Husky Promise and Students First, and getting a chance to achieve their goals."



To learn more about the Husky Promise and Students First initiatives: www.cs.washington.edu/campaign/studentsfirst.html, or contact Ed Lazowska, lazowska@cs.washington.edu.

from 'birdsongs' to soccer



Students from CSE466 demonstrate their final project in the Atrium.

In winter quarter's "Software for Embedded Systems" class, students designed and built their own accelerometer-based wireless controllers (think homemade and more versatile versions of Nintendo's Wii controller). The end-of-quarter demonstration involved 28 students simultaneously using their controllers to participate as players in a soccer video game.

The rules were modified somewhat to add some interesting new elements: Each student started as an individual player (a small circle) on his or her respective team. Players merged if their circles touched; merged players could move twice as fast if their actions were coordinated (think sack races); and players could continue to merge into larger (and potentially faster) players. Merged players split apart if they touch a member of the opposing team; a split produces all singleton players; and singletons jump to random locations. A team scores when one of its players (single or merged) goes through the goal, and the score is proportional to the size of the player.

All student controllers performed flawlessly, and after two 15-minute halves, the blue team edged out the red team, 134-122.

Two CSE undergrads win Goldwater Scholarships

Goldwater Scholarships are the most prestigious awards available to undergraduate students in mathematics, the sciences, and engineering. CSE undergraduates Julia Schwarz and Pavan Vaswani have been named among this year's 317 Goldwater Scholarship winners nationwide.

Established by Congress in 1986 to honor Senator Barry M. Goldwater, the purpose of the Goldwater Scholarships is to provide a continuing source of highly qualified scientists, mathematicians, and engineers by awarding scholarships to college students who intend to pursue careers in these fields. The Goldwater Scholars were selected on the basis of academic merit from a field of 1,110 mathematics, science, and engineering students who were nominated by the faculties of colleges and universities nationwide.



Julia has worked on two research projects in CSE: Classroom Presenter (educational technology) and Panlingual Image Search (data mining, computational linguistics). Currently, she is most interested in educational technology and human computer interaction. This summer she will intern at Google Kirkland.

Pavan's research focuses on medical device design. He works in a lab in Neurosurgery and the Applied Physics Lab developing a device to measure brain pressure non-invasively using a technique called vibroacoustography. (Using ultrasound to remotely vibrate brain tissue, researchers listen to how the tissue responds and vibrates back.) This summer he will continue working in the lab, funded by the Washington NASA Space Grant Consortium.



Remembering Eric Wings



Eric Wings, CSE class of 2005, committed suicide in Redmond, Washington on December 20, 2006 at age 24. Eric is survived by his brother, Scott Wings, a junior at UW, and his parents, Linda and Kirk Wings of Seattle. Eric worked with Professor Richard Ladner on a research project titled "The Geometry of Pyrite Mirrors." In the project, Eric showed how close the geometry of these ancient mirrors resembled a classic geometric construction called the Voronoi diagram. Eric was close friends with two of his high school buddies, Tian Li and Cary Cherng, who were also CSE majors at UW.

Magda Balazinska wins Microsoft New Faculty Fellowship award



CSE's Magda Balazinska is one of five winners -- from more than 100 nominees -- of 2007 Microsoft New Faculty Fellowships. Balazinska joined the faculty in January 2006. She received a Ph.D. from MIT in 2006 and her M.Sc.A. from École Polytechnique de Montréal in 2000.

The New Faculty Fellowship Program is designed to identify and support exceptional young faculty who are advancing the state of the art of computer science research. The awards provide \$200,000 in research funding, as well as an opportunity to engage with researchers from Microsoft Research. With this award, recipients are able to plan their research agendas to transform their chosen disciplines.

"I am thrilled and deeply honored to have been selected as one of the Microsoft New Faculty Fellows!" said Balazinska. "This \$200K gift will allow me to fund two graduate students over two years. We will be able to work together on riskier projects without having to worry about funding these projects through long-lead-time grants."

Balazinska's research interests are broadly in the fields of databases and systems. Currently, she is interested in building data-management systems for monitoring the physical and digital worlds. In particular, she is exploring techniques to combine real-time data streaming in from geographically distributed sensors with rich historical data that accumulates over time. The goal is to provide users with a more accurate, detailed understanding of the environment they are monitoring. This work has the potential to significantly improve our ability to accurately monitor our world.

and the winner is...

Offering a look into the lives of recent CSE graduates, "A Day in the Life" video gives an accurate portrayal of what it means to work in the software industry. In short segments, interviewees discuss what it is like to work at Microsoft, Google, and Amazon. Part of our student recruiting efforts, these shorts have been nominated for a NW Regional Emmy. Stream them from:

<http://www.cs.washington.edu/WhyCSE/>



Marty Stepp joins CSE faculty

Marty Stepp joined the department as a Lecturer in September 2006. He has collaborated on an introductory programming textbook titled *Building Java Programs: A Back to Basics Approach* with fellow lecturer Stuart Reges (released in February 2007). Marty teaches primarily courses that focus on software development, such as introductory CS and software engineering. He is presently creating a new web programming course that will be offered next year.



Marty received his Master's degree from the University of Arizona while doing research on obfuscation, watermarking, and geometric algorithms. He worked as a developer at Microsoft on the Microsoft Office Business Intelligence team. Marty was a lecturer for two years in the UW, Tacoma's Computing and Software Systems program. For more information, see:

<http://www.cs.washington.edu/homes/stepp/>

(Continued from page 4)

datagrams (cont'd)

UW CSE - Making UCSD CSE Great Since 1984

As a fund raising gimmick, UC San Diego encouraged friends to purchase 12" square engraved paving stones on the walkway that runs through the new engineering courtyard in front of the CalIT2 and CSE buildings. For \$400, it was impossible not to participate.

UW CSE has eight and a half alumni on the UCSD CSE faculty: Fran Berman, Brad Calder, Bill Griswold, Sorin Lerner, Stefan Savage, Steve Swanson, Dean Tullsen, half of Amin Vahdat, and Geoff Voelker. Fran Berman, the first of these, joined UCSD CSE in 1984.



Lee Hood elected to National Academy of Engineering

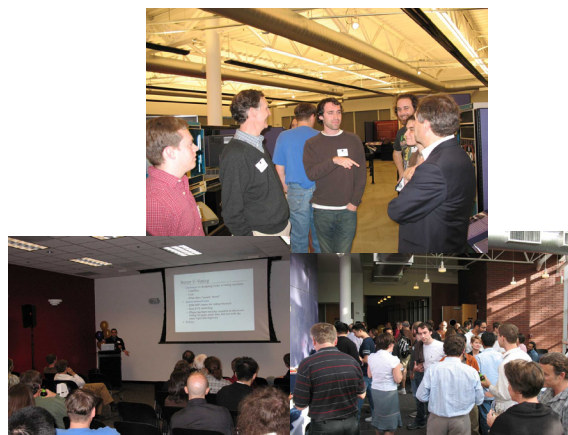
Lee Hood, Founder and President of the Institute for Systems Biology and Adjunct Professor in UW CSE, has been elected to the National Academy of Engineering. Lee is one of only seven individuals who are members of all three National Academies: the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine. Hood's induction into the National Inventors Hall of Fame also was announced in February 2007.

recent CSE events

CSE open house and ice cream social, April 27-28th



CSE Bay Area alumni reception, Computer History Museum, April 30th



CSE Puget Sound alumni reception, Bellevue Arts Museum, May 15th



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most significant bits

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