

# Remembering Reed Oei

Poster by Pradyumna Shome

## Christopher Settles

*Reed and Chris were both undergraduates at UIUC where they were frequent collaborators across many classes and were both on the CS 126 ("Software Design Studio") course staff.*

Reed once told me his plans of entering academia and becoming a professor so he could continue exploring his curiosity of software languages. Though Reed's life was cut short before he could accomplish that, the work he did to inspire others and the research results he achieved in his short time is work that some others only aspire to accomplish in their lifetimes.

To me, Reed was the most determined person I ever met. His never-ending curiosity of the intersection between math and computing was evident by his consistent action towards delivering his academic research. And he loved sharing his knowledge and passion for learning. Reed frequently would host workshops teaching fellow UIUC students about the perplexing principles of functional programming.

I had the privilege of working with Reed on a class final project. The project was to build a program that implemented a high-level strategy in low-level computer code (MIPS) that could 'mine asteroids' with a simulation the class provided us. At the end of the project everyone's code would be run against each other's, and the team with the best strategy would win the class competition. The assignment prohibited using an outside compiler that could compile C code to mips code. However, the assignment instruction technically didn't say anything about building your own compiler. So, that semester, Reed used his functional programming skills and

passion to create a C-to-Mips compiler to support the creation of our final project. Reed's compiler to compile C code down to mips allowed us to write our strategy in C and place in the top 4 of the class. Overall, the weeks spent preparing for and participating in this competition with Reed were some of the most exciting weeks of my academic career.

I'm honored to have met Reed in my lifetime, and I thank him for all he's done to inspire me & others.

Rest In Peace, Reed

### **Josh Byster**

Reed and my friends were in Program Verification class together (CS 476) at UIUC. He was extremely skilled when it came to any and all of the material we discussed, but was so humble in sharing his knowledge with us when we were having difficulty. We are all grateful for his extremely kind demeanor and positive nature as he helped us get through very challenging material.

### **Pradyumna Shome**

Reed and I have known each other since our first day as undergraduates at UIUC. He was the consummate intellectual, passionate about producing great work in both mathematics and computer science, and teaching others all that he knew. He was one of the most good-natured people had the privilege of meeting -- a true gentleman, exceptionally bright, and someone with markedly divergent interests and passions among our fellow CS majors.

I've enjoyed many interesting conversations, projects, classes, meals, and tennis rallies with him, and I'm heartbroken that there won't be more. I'm going to miss him a lot. I send my heartfelt condolences to his family.



*The photograph above was taken In December 2019 at the Golden Harbor Authentic Chinese cuisine restaurant in Champaign, IL.*

### **Abdullahi ("Abdi") Abdalla**

I met Reed during our first lab section of a class titled "Software Design Studio". We would go through mini code-reviews with peers in these lab sections. I was instantly surprised how advanced Reed's knowledge of software design and programming languages were.

Reed knew his interests and he pursued them. And he did it by sharing them with other people. He revived the ACM Special Interest Group for Programming Languages chapter at UIUC. He gave lectures and patiently answered my dumb questions about Haskell syntax. This generosity with his time speaks to his character. Throughout our time at UIUC, I admired Reed for his passion and dedication to his work. Reed inspired me to dive deeper into my interests in CS. I can only imagine how many people he's had a similar impression on.

I was sure Reed was going to go become a world-renowned academic. I was certain he was going to continue sharing his knowledge and passion for mathematics and computer science with the rest of the world. And I could guarantee that whatever he would go on to do, he'd impact the people around him with his kindhearted nature and patient understanding.

So I was very shocked and saddened to hear of his passing. My condolences and prayers go out to his family. I hope we can continue to remember Reed and his impact on us, together.

### **Jackie Oh**

I was on CS 126 ("Software Design Studio") course staff with Reed and worked on iDFlakies, a research project he also worked on. He contributed heavily to a few of the codebases I was working with and I was always impressed with his work and looked up to how much he had accomplished. He was kind, talented, reliable, and extremely hardworking. I didn't know him very well but I was deeply saddened to hear of this loss. Praying for him and his family during this difficult time.

### **August Shi**

*August and Reed collaborated on software engineering research during his freshman and sophomore year at UIUC.*

Reed was a very bright, amazing student. Reed was always very easy to work with, and I learned quite a lot from him in all the projects we worked together on, from the actual research insights we obtained from our work together, all the way to how to search a text document in Vim while ignoring case. Even after he moved on to research in mathematics, Reed would still stop by and chat with us, and I was impressed by how passionate and excited he was about his work and the cool things he would be doing. I was looking forward to all the amazing things he would accomplish in the future, and he was taken from us much too soon.

My sincerest condolences to Reed's family, he will certainly be missed.

## **John Wang**

Reed was the reason I became interested in formal methods. I went to SIGPLAN freshman year, and he basically taught me Haskell. If he wasn't there, my undergrad would have been a lot different. To be honest, I didn't know him very well personally, but I did try to attend SIGPLAN every week. At each SIGPLAN meeting, Reed would lecture about something fascinating, but I would often struggle to understand because it seemed like Reed's mind was on another level. Reed was the smartest person I met at UIUC, and very few were even close to his intelligence. It feels so strange to hear that he is gone.

*Editor's note: SIGPLAN is a special interest group of the UIUC chapter of the Association of Computing Machinery, dedicated to helping people learn more about programming languages theory. Reed became the Chair his first semester and continued in the position until he graduated four years later.*

## **Philipp Hieronymi**

*Former math professor at UIUC.  
Now at University of Bonn.*

*Philipp mentored Reed's mathematics research at the Illinois Geometry lab*

Reed was obviously a brilliant and exceptional student and researcher. He was also extremely kind and friendly. He was a real team player, always offering help. While I hadn't heard much from him since he started his PhD at UCLA, I expected that soon he would make his name as the new shooting star in descriptive set theory (or whatever field of logic or mathematics he would decide to do his PhD in). It is hard for me to come to terms with this loss. Reed will be dearly missed.