

Perspectives of a deaf computer scientist

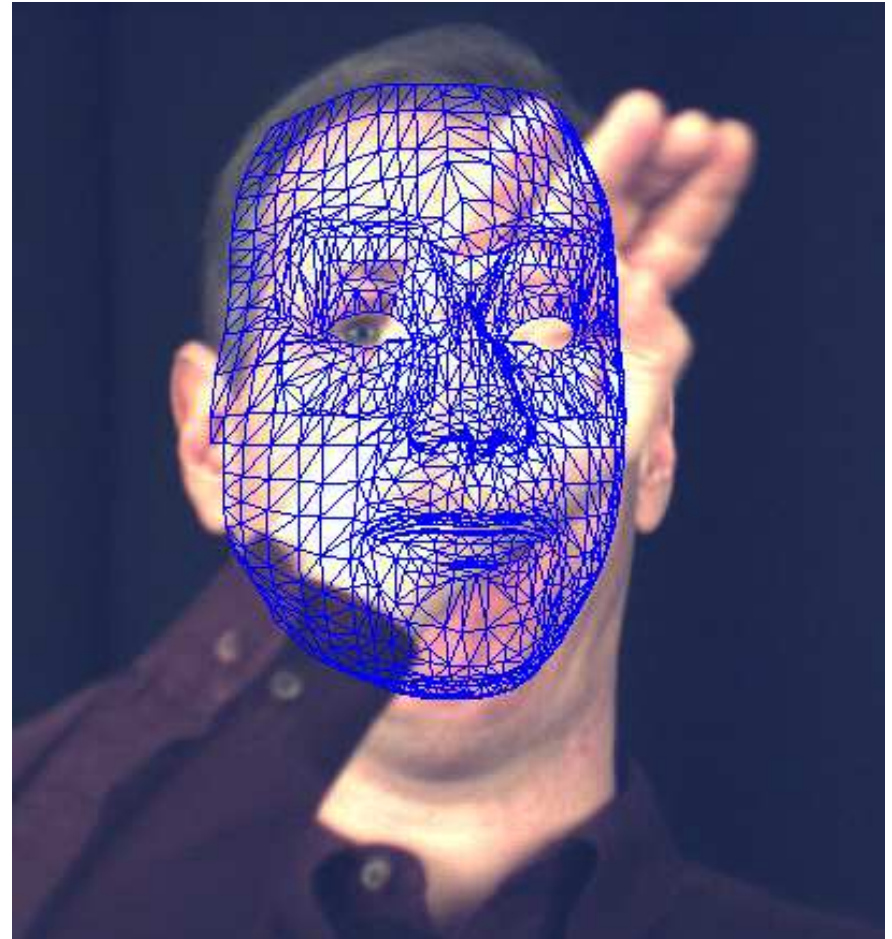
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Background

- From Germany, came to US on Fulbright scholarship
- Ph.D. in computer science, University of Pennsylvania, 2003
 - Possibly first deaf student to complete Ph.D. in computer science in the USA
- Postdoc at Rutgers University in spring/summer 2003
- Research scientist at Gallaudet Research Institute, Gallaudet University, since fall 2003

Current Work

- 3D face tracking on natural sign language sequences
- Collaboration with computer scientists and linguists on sign language recognition, supported by NSF ITR grant
- Summer College Transition Academy in Computing



Accessibility Issues

- The deaf community is very **diverse!** What works for one person may not work for another one
- Use multiple channels of information
 - Just as I do here
- Academics
- Social and conferences

Academics: Issues

- Terminology and subject knowledge a problem for sign language and CART interpreters
- Time lag between professor and interpretation/captioning
 - Especially a problem in math, and theory of computation
 - how do we know what equation/state/etc. the professor is pointing at

Academics: Some Solutions

- Use comprehensive slides/notes in class, and make them available pre-session
- Do as much online as possible; great equalizer
- Follow textbook
- Avoid writing on blackboard, write on slides with touch pen
- Pause briefly after pointing to give interpreter chance to catch up
- Offer one-on-one tutoring and notetaking in addition to sign language/CART interpreters

Social: Issues

- Most people don't know sign language
- Spoken language skills vary widely among deaf
- Group interactions especially problematic

- Deaf Ph.D. students need a small core group of fellow students to help one another pull through
- Requires patience, understanding, willingness to adjust communication patterns on all sides

Conferences: Issues

- No interpreters at international conferences
- Limited coverage at domestic conferences
 - Budget problems, often only presentations covered, not social events
- Deaf people need time to get used to talking to unfamiliar people
- Networking suffers

Social & Conferences: Solutions

- Finding a group requires a lot of effort and luck
- At conferences, have familiar faces go together with deaf person
 - Repeat for deaf person what he missed
- Conference organizers: Some funding agencies, e.g. NIH, have programs to help with costs for accommodations
 - But people need to know about them!

Awareness

- Departments can really help with that:
 - Positive attitudes count. Deaf people can do nearly anything on an equal footing, we just have some communication issues
- Make deaf students aware of peers/resources
 - Spread the word
- There is also a loose organization of deaf academics, but too many deaf students do not know of it yet.
 - <http://www.deafacademics.org>