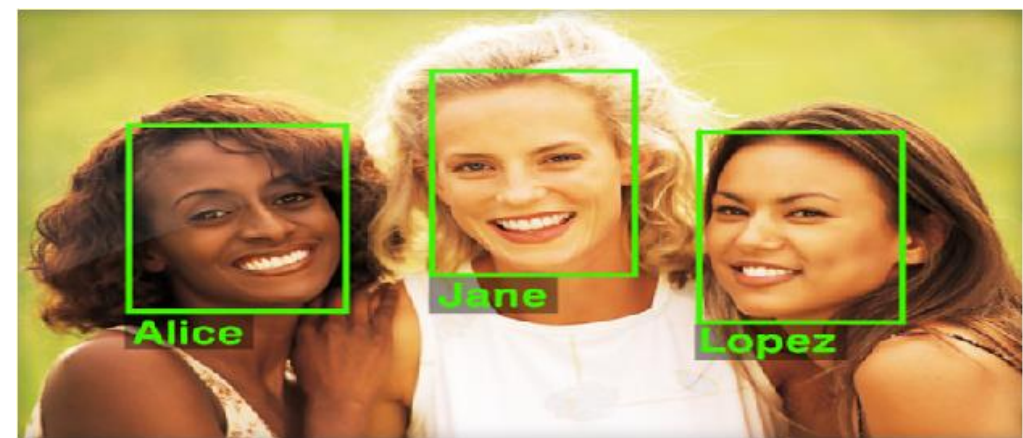


GLASSessibility Project

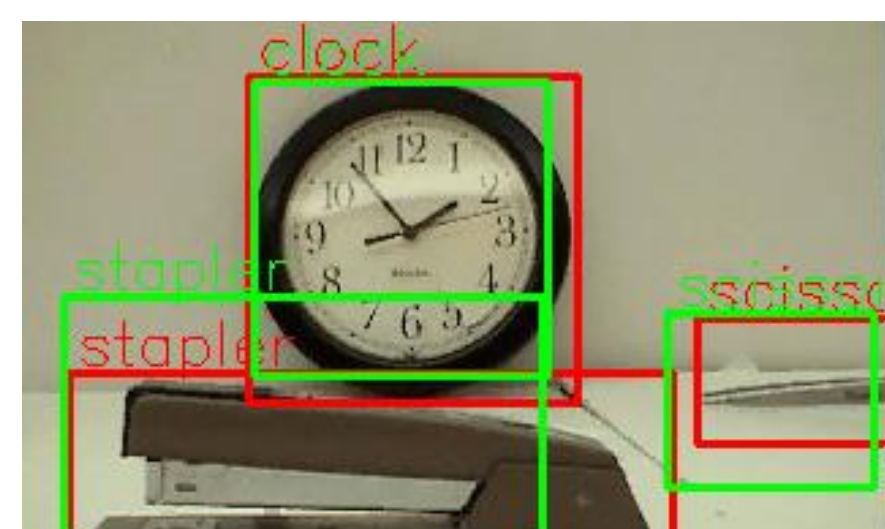
GOALS

- Develop memory assistive apps
- And foundational research
- For GLASS
- That get better and better
- Using machine learning



Who Is This?

- Face Identification
- Acquire video using GDK
- Locate face in frame
- Search for face match using GDK or Mirror API
- Display name if found
- Or request name to learn a new face
- Party mode – actively tag all faces in real time



What is That?

- Thing Identification
- Locate object in frame
- Search for object match
- Display name if found
- Or request name to learn

Inspiration

- Dr. Way's dad has early stage Parkinson's and family history of memory loss
- Hope to help people whose loved ones could benefit from memory assistive technology

"My Dad's Backup Brain"



Other Research

- Parsing & Translation
- Machine Learning
- Sentiment Analysis
- Computer Science Education
- SMS Conversational Agents
- Plagiarism Detection
- Nanocompilers
- DHMO.org

PROPOSED WORK

Memory Enhancement using Machine Learning

- Assist those with memory deficiency
- Alerts for upcoming schedule items
- Learn wearers daily routine automatically
- Detect and learn new places and faces
- Discover schedule items based on location, time and day
- Enable caretakers to customize schedule entries
- Identify people, objects and locations using visual cues and GPS

Serendipity

- Plan to actively play with GLASS
- We expect to discover new ideas
- Research in machine learning, memory assistance, facial recognition, object identification, low power & wearable computing

TEAM



Dr. Tom Way



Dr. Bill Wagner



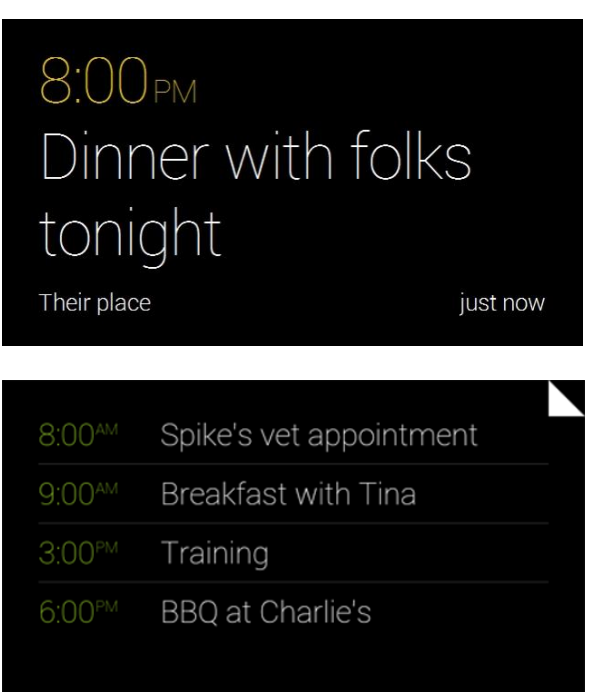
Corinne Reimers



Adam Bemiller

What's Next?

- Grabs Calendar events with Mirror API
- Presents scheduled Alerts
- Recognizes new locations, guides adding a new Alert



My Google

- Supervised & unsupervised learning
- Personalized "view" of Google is developed
- Interactions over time improve the "view"

Unexpected

- Learns what "normal" is
- Identifies unexpected activities, events, people, and places
- Guided adding of new things to remember

Glass Accessibility Workshop
May 15-16, 2014
Google HQ, Mountain View

