AGI16 Calendar: [link]

- **Tue 30 aug 13:00-15:00**
- **Fri 2 sep 8:00 – 12:00**
- **Tue 6 sep 13:00 – 15:00**
- **Fri 9 sep 8:00 – 10:00**
- **Tue 13 sep 13:00 – 15:00**
- **Fri 16 sep 10:00-12:00**
- **Tue 20 sep 13:00 – 15:00**
- **Tue 27 sep 13:00 – 17:00**
- **Fri 30 sep 8:00 – 16:00**
- **Tue 4 oct 13:00 – 15:00**
- **Tue 11 oct 13:00 – 15:00**
- **Tue 1 nov 13:00 – 15:00**
- **Fri 4 nov 9:00 – Sun 6 Nov 16:00**
- **Tue 15 nov 13:00 – 15:00**
- **Fri 18 nov 8:00-12:00**
- **Tue 22 nov 13:00-15:00**
- **Tue 29 nov 13:00-15:00**
- **Tue 6 dec 13:00-15:00**
- **Tue 13 dec 13:00-15:00**
- **Fri 16 dec 15:00-19:00**

**Lecture 1:** Introduction

**Lecture 2-3:** Forming Groups and Brainstorming

**Lecture 4:** Groups formed, inspiration, and brainstorming

**Lecture 5:** Proposals

**Lecture 6:** Past projects and current technologies

**Lecture 7:** Hello World Demos

**Lecture 8:** Preparing ForskarFredag 2016

**Lecture 9:** Demo and preparation towards ForskarFredag

**ForskarFredag** *(we set up on Thursday evening)*

**Lecture 10:** Reflecting on ForskarFredag

**Lecture 11:** Preparing for Comic Con

**Lecture 12:** Preparing for Comic Con

**Comic Con** *(we set up on Thursday evening)*

**Lecture 13:** Forming groups for project 2

**Lecture 14-15:** Proposals Project 2

**Lecture 16:** Hello World Demo Project 2

**Lecture 17:** Feedback on Demos

**Lecture 18:** Preparing for Open House

**Lecture 19:** Demo project 2

**VIC AGI16 Open House**
1. Reminder Lecture 1
2. Introducing myself
3. Mixed-Reality Whole-Body Interaction
   1. Some AGI14 and AGI15 projects
4. VIC studio tour
5. Discuss
   1. Figure out how demos work!
   2. Projects from SIGGRAPH
   3. Projects from AGI14 and AGI15
6. Start forming groups of 5 or 6
   1. Personal Survey
      1. Align interests
      2. Compliment skills
7. Presentation by www.manomotion.com
8. You Introduce
   1. Groups
   2. Names
   3. Ideas
9. Next time...
Remember Lecture 1
Intended Learning Outcomes

1. Collaborate to build original and stable projects that combine methods in advanced computer graphics and advanced human-computer interaction;

2. Communicate the theory and practice of these methods at a technical and a practical level;

3. Provide informed constructive criticism to the development of the projects from other teams;

4. Demonstrate the projects at large public venues to open audiences.
AGI16 Grade Assignment

• Project 1  50%
• Project 2  40%
• Assignments  10%
  – <100 minutes/week
  – Reading
  – Writing
  – Coding
  – Interacting
  – Watching videos
  – Answering surveys
Project 1 (50%)

- Proposal 4% 9 Sep
- Demoes 6 16 Sep, 27 Sep, 3 Nov
- ForskarFredag 10 30 Sep
- Deliverable 1 5 11 Oct
- Comic Con 10 4-6 Nov
- Open House 10 16 Dec (tentative)
- Deliverable 2 5 21 Dec (tentative)
Project 2

- Proposal 5% 18 Nov
- Demoes 10 22 Nov, 13 Dec
- Open House 15 16 Dec (tentative)
- Deliverable P2 10 21 Dec (tentative)
Deliverables

1. Working VIC Demo
2. Code with comments
3. Webpage with:
   A. Description
      i. Goal and motivation of the project
      ii. Explanation and justification of the graphics and interaction technologies used and developed
      iii. Individual Contributions
      iv. Challenges
      v. Obstacles
      vi. Related work
      vii. Lessons learned
   B. Photos
   C. "Making of" documentary (2 minutes)
   D. Demo Reel (30 seconds)
   E. Optional PR material (logo, trailer, flyers, posters, catalog)
   F. User testimonials (what did people say)
4. Look at pages from previous years! AGI15 and AGI14.
Grading Criteria

1. F = Projects do not work, no deliverables, no demos
2. E = Code, Effort, Deliverables, projects partially work
3. D = E + projects work smoothly, excellent deliverables and demos
4. C = D + Advanced Interaction OR Advanced Graphics
5. B = C + Advanced Interaction AND Advanced Graphics
6. A = B + clear individual contribution towards advanced graphics OR advanced interaction
A note:

• All of the images in this presentation have hyperlinks to original content.
Presenting Myself
Sweden (441,370 km²) is 1.72 times as big as Ecuador (256,369 km²). Ecuador (15.8 M) is 1.65 times more populated than Sweden (9.6 M). And the sun sets and rises at six every day in Ecuador.
¡Hice lo que quise!
B.S. Industrial Engineering
B.S. Construction Engineering
Minors:
  Art History
  Graphic Design
  English
Promote curricular advancement through interactive computing technologies
Master in Computer Science
Artificial Intelligence
PhD Computer Science
Human-Computer Interaction
Information Visualization
Digital Media
Evaluating Video Visualizations of Human Behavior

Mario Romero
Alice Vialard
John Peponis
John Stasko
Gregory Abowd
Georgia Tech-developed app allows eyes-free mobile texting

Urvakh Korkaria
Staff Writer
Atlanta Business Chronicle
Email | Twitter | Google | LinkedIn

A two-century-old code for reading and writing sight-free could soon allow the sighted to type without looking at the screen of their smartphone. A team of Georgia Tech researchers has developed a technology that uses Braille to make eyes-free mobile texting possible.

Researchers have built an application, called BrailleTouch, for smartphones and tablets. The application reads and writes text using Braille code. The user can type in text using the BrailleTouch app and also read messages by touching the screen.

The technology is being developed by researchers at the Georgia Institute of Technology in Atlanta. The app is designed for people who are blind or visually impaired, as well as for people who want to improve their typing speed and efficiency.

The app uses a combination of voice recognition and Braille reading technology to enable users to communicate effectively without looking at the screen. The technology can be used in various applications such as mobile phones, tablets, and laptops.

The app is currently in its testing phase and is expected to be released soon. The app is available for download on the Google Play Store and the Apple App Store.

The technology is expected to have a wide range of applications, including mobile phones, tablets, and laptops. It can be used by people who are blind or visually impaired, as well as by people who want to improve their typing speed and efficiency.

The app uses a combination of voice recognition and Braille reading technology to enable users to communicate effectively without looking at the screen. The technology is currently in its testing phase and is expected to be released soon.
Postdoc
Applied Mathematics
Associate Professor

HCI Visualization Graphics
Teacher of the Year 2013

Mario Romero, HPCViz

“This year's Laureate have renewed education by successfully kill two, or perhaps three, birds with one stone.

When the students on courses in graphics, interaction, and visualization will show their skills, ideas and projects to outsiders at "Forskar-fredag", conferences and contests has been rewarded with great interest, media attention and prices. At the same time deepen the students' problem-based learning and motivation through their project work will be significantly appreciated outside the classroom. Mario Romero additionally utilizes his experience of scientific publication and manages through innovative structure of universities perform tasks of research, teaching and with the community in a single..."
Mixed-Reality Spectrum

Real Environment  Augmented Reality (AR)  Augmented Virtuality (AV)  Virtual Reality (VR)

Spatial Real World  Mixed Reality  Immersive Virtual World

29 rpm  19.8 total miles  88 rpm  200y

2016/09/02  AGI16 - L2
Select Portfolio
Virtual Sculpting
Embodied Sculpting
MegaMind Tekniska Museet – Forma i Luften
Hands-on interaction with 3D, haptics, sound
Base Jumper

- Octree rendering
- Computer vision body control
- Link (not on the image)
PodRacer
PodRacer
From the stormtroopers: "Devoid of colour differentiation (Stormtroopers see everything in shades of green) made it hard to spot the ghosts." A universal consideration for interaction design: accessibility and color blindness.
ChillLax
COLOR SPLAT

An augmented virtuality game!

FIND OUT MORE
Spinnulator
• Ideas
  – Madsand
  – AR
  – Coop
  – 2 interfaces
    • Drive car
      – 1st person
    • Blocks of roads
      – Recognized and integrated into the experience

Group CoCAR (1)

Students
  Kevin
  Mikael
  Ingemar
  Erik
  Casper
  Hampus

2016/09/02
AGI16 - L2
Group The Chosen Ones (2)

Students
- Ludwig
- Emilio
- Erik
- Björn
- Erasmus

• Ideas
  - Padawan 101
  - NEO!!!
  - VR Headset
  - Bullet time
  - Dodge ’em
  - Kinect body tracking
• Ideas
  – Can’t see – blind
  – Eco localization
  – Stealth
  – Scream, but not always
  – VR or Oculus
Group Agitators (4)

Students
- Arvid
- Anton
- Erik
- Emil
- Calle
- Rickard

Ideas

- Ski jump simulator
  - Kinect
  - Oculus
  - Tactile transducer

- Flying an airplane
  - HTC VIVE
  - VIVE controls
• Ideas
  – Sand box game where you are god
  – People react to your actions
  – VR Sim city
  – Context awareness
  – Projections
  – Audience!!! Other people need to see it!! Without the registration
Group Domino (6)

Students
  Wei
  David
  Adria
  Lisa
  Maria
  Hans

• Ideas
  – From god perspective and create something
  – Cooperation game – helping your friend survive zombie apocalypse
  – Explorer
  – Virtual quiditch sit in brom
Group Pointy Stick (7)

Students
  Mathilde
  Jack
  William
  Henrik
  Max
  Haisheng

• Ideas
  – Gesture game
    • Wizard
    • Haptic feedback to spells
    • VR
    • Kinect
Group Have Mercy (8)

Students
- Adrian
- Alex
- Robin
- Alan
- Yinglai
- Joakim

• Ideas
  - Assymetrical game
  - Two parts
  - Against each other
  - Maze game
  - Enhanced reality
  - Maze runner will have 1st person perspective
  - Gesture-based interaction
  - Kinect, or touch screen
Group monkeys with bananas (9)

Ideas
- God!!!
- Horror
- Transport
- Two player
- Assymetric
- Focus on visuals!
- Vive, oculus, kinect

Students
- Henrik
- Floris
- Mark
- Halit
- Xu
- Yuchen
• Ideas
  – Fighting game
    • Tacitile response
  – Beer pong
    • Real ball
  – Drunk driving simulator
    • VR
    • Oculus

Group NONAME (10)

Students
  Patrik
  Domagoj
  Mikael
  Niko

2016/09/02
Thank you!

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