

Research & Grad School

CPE200, Fall 2023

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<http://aggregate.org/hankd/>

Undergraduate Research

- Office of Undergraduate Research

<https://our.uky.edu/>

<https://foragerone.com/profile/249100>

- Talk with faculty
 - Identify faculty by WWW pages, etc.
 - Talk with more than one
 - Don't overcommit!

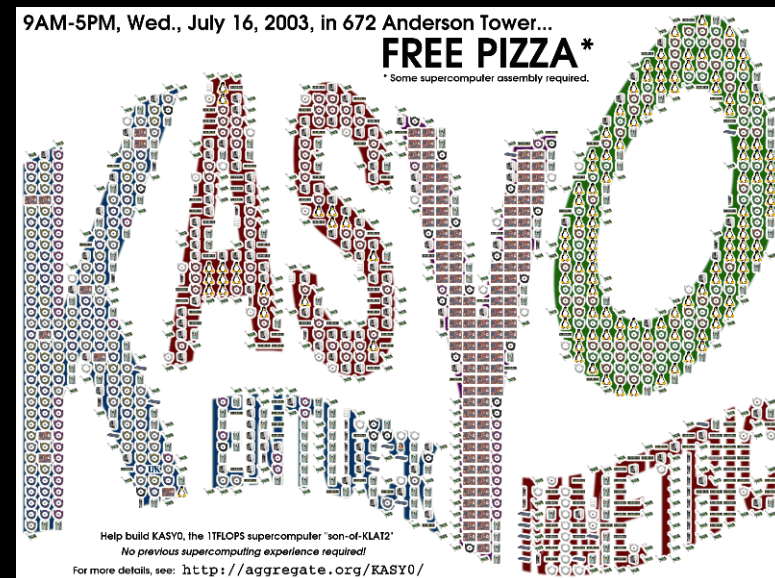
Undergraduate Research

- Modes
 - Volunteer
 - Some clubs, e.g., solar car
 - EE395: 1-6 credit independent study
 - EE595: 1-3 credit independent problems
 - EE490/491: 3+3 credit ECE capstone
 - Hourly paid research assistant...
especially Summer REUs

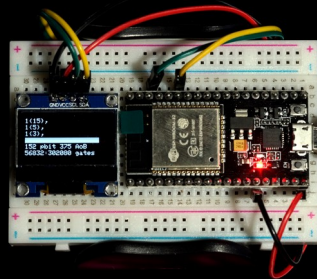
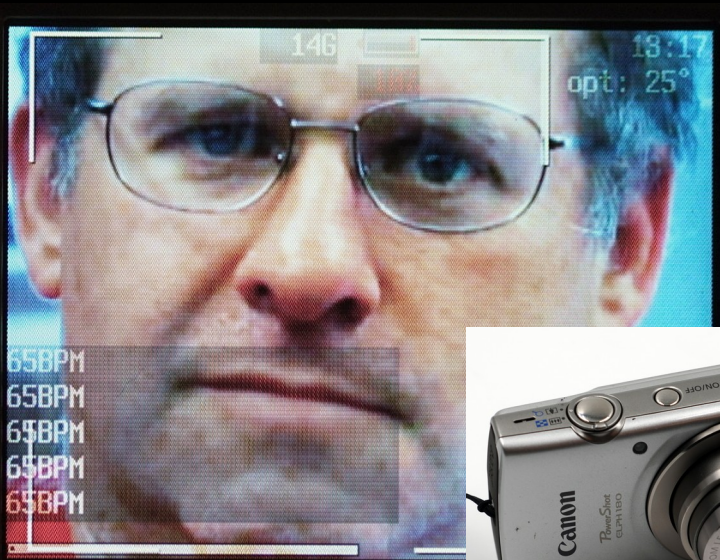
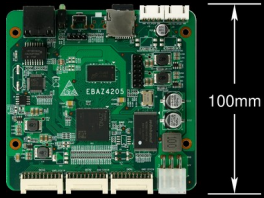
Events like Build Parties



July 16, 2003
Building KASY0
(Kay-See-Zero)



Some Undergrad Research Done In My Lab



Why Graduate School?

- Salary (from ComputerScience.Org)?
BS: \$92K, MS: \$103K, PhD: \$131K
- Employability; job options?

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- You really want to do it.

When Graduate School?

- Overlapping undergrad
GPA 3.5 major, 3.2 overall; 90 credits; no GRE
University Scholars Program
<https://gradschool.uky.edu/university-scholars-program>
- Immediately after undergrad
- Later, after working for a while
 - Going back to school full time
 - Part-time, ideally paid by work

Graduate Degrees

- As computer engineers, you have options:

CPE MS/PhD: <https://www.engr.uky.edu/computer-engineering>

CS MS/PhD: <https://www.engr.uky.edu/computer-science>

EE MS/PhD:

<https://www.uky.edu/academics/masters-doctoral/electrical-engineering-graduate>

Data Science MS: <https://www.engr.uky.edu/data-science>

Almost anything else...

- ~24-30 credits to MS, ~42 to PhD

Research in Graduate Degrees

- **PhD** requires a **thesis** or **dissertation**:
new and significant advance of state-of-the-art
formally written and defended
- **MS** generally requires either:
 - **Thesis** *formally written and defended*
 - **Project** *informally written and defended*
 - *Course-only MS generally isn't done here...*

Other Options?

- Undergrad degree++?
 - **Minor**: e.g., CS minor is 20 credits
<https://www.engr.uky.edu/sites/default/files/Computer%20Science%20Minor%20Sheet%202021-22.pdf>
 - **Certificates**: e.g., Cybersecurity
<https://www.engr.uky.edu/research-faculty/departments/electrical-computer-engineering/students/undergraduate/undergraduate>
 - **Certificates**:
 - **Double major**: one diploma, two majors listed
 - **Dual major**: two diplomas, major +24 credits
(e.g., dual CPE+EE is 152 credits, not 128)
- CPE is *almost* a double major EE+CS