What is ACM?

A collection of groups focused on fields in computing
• Game Development
• Artificial Intelligence
• Robotics
• Etc...

Host Special Events
• Company Tech Talks
• Help Sessions
• Student led Talks
• Programming Competitions
• Hackathons
Ask an Intern

How can I get an interview with Big Name Company?
Should I try out a startup?
How do technical interviews work?
What do I do once I have an offer?
How to: Install Linux

Why should I use Linux?

What is EXT4?
What is SWAP?

Should I install Arch Linux?
(Lol, probably not)
High School Coding Competition

Simple coding questions (think FizzBuzz)
Talk to students about CS and Purdue
Learn about competitive programming
SIGAPP
Applied Computing
We Make Cool Stuff!

- Official Purdue App for Android
- Official Safewalk App for Android, iOS
- Other member projects

- Focus on….
  - Android
  - Backend
  - Web
Purdue App Today

More native features
Buses
Washers and Dryers
Lots of interest from new members
Safewalk Today

Working 1.0
Android, iOS, Backend
New Members

- Many of inexperienced freshmen
- Learning tech talks and tutorials
SIGART

Matthew Page
Nikolas Ogg
Anubhaw Arya

We work on interesting projects related to artificial intelligence.

LAST YEAR: WikiCrawler, Chess AI

THIS YEAR: Snake AI, TBD
Last Year (Fall): WikiCrawler

Wikipedia

From Wikipedia, the free encyclopedia

This article is about the Internet encyclopedia. For other uses, see Wikipedia (disambiguation).
For Wikipedia's non-encyclopedic visitor introduction, see Wikipedia:About.

Wikipedia (athlon) is a free-access, free-content Internet encyclopedia, supported and hosted by the non-profit Wikimedia Foundation. Those who can access the site can edit most of its content under the expectation that they follow the website's policies. Wikipedia is ranked among the ten most popular websites and constitutes the Internet's largest and most popular general reference work.

Jimmy Wales and Larry Sanger launched Wikipedia on January 15, 2001. Sanger coined its name, a portmanteau of wiki and encyclopedia. Initially only in English, Wikipedia quickly became multilingual as it developed similar versions in other languages, which differ in content and in editing practices. The English Wikipedia is now one of more than 200 Wikipedias and is the largest with over 4.9 million articles. There is a grand total, including all Wikipedias, of nearly 35 million articles in 288 different languages. As of February 2014, it had 18 billion page views and nearly 500 million unique visitors each month. Globally, Wikipedia had more than 25 million accounts, out of which there were about 120,000 active editors as of September 2015.

Supporters of Wikipedia cite a 2005 survey of Wikipedia published in Nature based on a comparison of 42 science articles on the same topics from the Encyclopedia Britannica and Wikipedia. The survey concluded that the Wikipedia articles on average are 2.5 times better than the Britannica articles in terms of information content.

The logo of Wikipedia, a globe featuring glyphs from several writing systems, most of them meaning the letter W or sounds "wi", "wo" or "wa"
Last Year (Spring): Chess A.I.

MiniMax

Alpha Beta Pruning

Hackathon Competition
This Year (Fall): Snake A.I.

CHALLENGES:

Knowing when to go straight for the fruit, and when to stack off to the side.

Taking into account parts of the snake that are about to expire

Optimizing our algorithms so that our AI can make moves very quickly (at the typical speed of Snake) on larger grids.
This Year (Spring): Still Deciding

We’re still deciding what to do for Spring. Our current ideas include:

- Go AI
- Spellchecker / predictive text
- Handwriting generation
- Facial / image detection

We’re open to other ideas. We’ll discuss what everyone is interested in later in the semester.
SIGBOTS

Special Interest Group - Robotics
John Busch Jr.
About Us

Compete in VEX Robotics Competition

Qualifiers around January, championships in April

Roughly half autonomous, half driver-controlled games

Three subteams:

- Software
- Electronics
- Mechanics
Last Year: VEX Skyrise

Score hollow cubes on poles

Build and score on your own pole for bonus points

Extensive mechanical lift design (2ft → 6ft)
This Year: VEX Nothing But Net

Robots cannot expand from starting sizes

Cross-field launching of balls into net

Have one robot lift the other for bonus points
The Mechanics Team

CAD design and documentation of robots

Build prototypes for iterative design of launching mechanisms

Create functional 3D-printed parts (unlimited # of parts this year!)
The Software Team

Masters of game strategy, give robots and drivers a plan of attack

Write autonomous scripts for robots to execute

Develop software tools to make prototyping and testing easier
The Electronics Team

Design custom sensors from the ground up to improve capabilities

Manage cabling on the robots to prevent interference

Use image processing to detect moved objects on the field
Purdue Robotics Operating System - PROS

Real-time operating system based on FreeRTOS kernel

Built and managed by Purdue students for the entire VEX community

Updating Eclipse plugin to support newer versions of the IDE
Member Contributions

Subteams are cross-discipline, work on what they enjoy learning

Veterans help teach newcomers everything they need to know

This year’s focus:

Dynamic autonomy
PCB design
Mechanical launchers
Real-time operating systems
Eclipse plugins
Passing it on: SIGBOTS 101

Hold lectures for newcomers and underclassmen

Veterans pass down past experiences

Help new members get industry-level experience

Members learn skills they will use in the classroom as well
“How can I help out?”

Love to champion sponsors on our robots, t-shirts, and at competitions.

Resources used for:

- VEX parts
- Custom sensors
- Field equipment
- Advanced lab equipment
  - Oscilloscope/Logic Analyzer
  - 3D printer

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ACM Special Interest Group on Game Development

Lee Anne Opfer, President
Who We Are
Past Projects

Blob Game

20,000 Leagues Over the Sea
Current Project

Suit Integrity: 100.00/100.00
Oxygen Levels: 30.00/30.00
Health: 100.00/100.00
Cash: 50
Tube length left: 59m
All systems operational
For the Future

Fall Game Jam - Sept. 25th - 27th

Enter Space Salvage into the 2016 Independent Games Festival

Global Game Jam - Jan. 29th - 31st
SIGSAC

Computer Security
What do we do?

Talk about computer security news and do projects
Current Events

RISK ASSESSMENT / SECURITY & HACKTIVISM

Ashley Madison hack is not only real, it’s worse than we thought
Intimate data for more than 30 million accounts, keys to Windows domain published.

How Unsafe Was Hillary Clinton's Secret Staff Email System?

Hackers Remotely Kill a Jeep on the Highway—With Me in It

iPhone Arabic Text Bug Can Flatline Apple Macs Too

The 10 Biggest Revelations From Edward Snowden's Leaks

How the Stagefright bug changed Android security

Google's latest security problem might actually make Android safer
The Projects

Android

Web

Linux