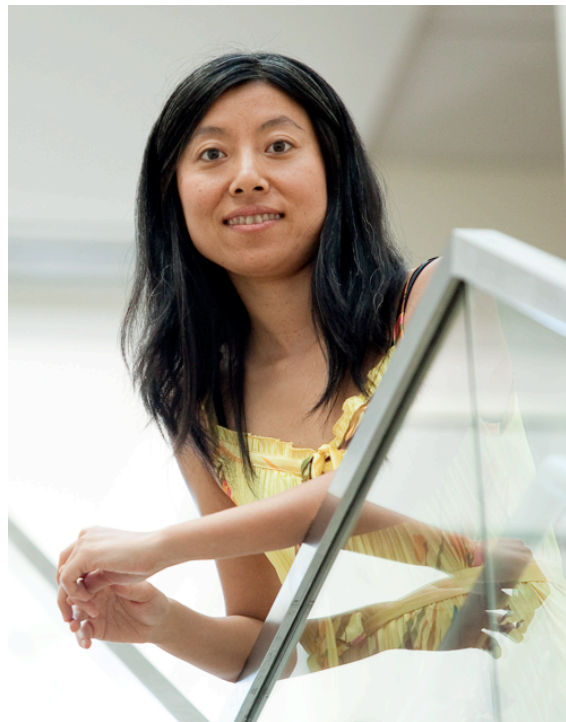


CS161 Computer Security

Overview

Teaching Team



What is Computer Security?

Personal Data & Files



The image shows two overlapping windows. On the left is a Windows File Explorer window titled 'WINDOWS' showing the 'C:\WINDOWS' directory. It features a sidebar with 'System Tasks', 'File and Folder Tasks' (Rename, Move, Copy, Publish, E-mail, Delete), 'Other Places', and 'Details' for 'SDL.dll'. On the right is a Gmail web interface for 'ahansen@gmail.com' showing an inbox with several emails, including one from 'me, Ask, Robert (8)' with subject 'gmail test'. The Gmail interface includes search, compose, and navigation options.

You are currently using 0 MB (0%) of your 1000 MB.

Shortcuts: o - open y - archive c - compose j - older k - newer

Banking Funds



The screenshot displays the U.S. Bank website interface. At the top left is the **usbank.** logo. To its right are navigation links: [About U.S. Bank](#), [Customer Service](#), [Locations](#), and [en Español](#). A search bar with the text **SEARCH** is located on the top right. Below the logo is the slogan **All of **us** serving you®**.

A dark blue navigation bar contains the following options: **CHOOSE: PERSONAL** (with a dropdown arrow), [Online Banking](#), [Checking & Savings](#), [Credit & Prepaid Cards](#), [Mortgage](#), [Loans & Lines](#), and [Investments & Wealth Management](#).


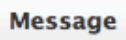

The main content area features a large banner with a photograph of a smiling couple looking at a laptop. The text on the banner reads: **The control you want. The resources you need.** Below this, it says: **Research, manage and trade with a convenient online self-directed investment account from U.S. Bancorp Investments, Inc.** A blue button with a right-pointing arrow is labeled **Open an Account**.

On the right side of the page, there is a login and location-finding section. It includes a **Log In** button with a lock icon and a **Find a Location** button with a location pin icon. Below these are input fields for **User ID** and a dropdown menu for **Internet Banking**. A **Log In** button is positioned below the input fields. Underneath, there is a link for **Log In Assistance** and a section titled **New to Internet Banking?** with a blue button labeled **Get Instant Access** and a right-pointing arrow. At the bottom of this section, the text **Homes come in all shapes and sizes.** is visible.

Personal Privacy


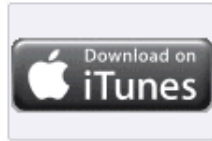


facebook  Search for people, places and things  Kurt Thomas Find



 **Justin Bieber**  Like  Listen  Message 

46,217,328 likes · 1,412,713 talking about this

Musician/Band
<http://smarturl.it/jbmktg> www.BIEBERFEVER.com
www.justinbiebermusic.com
www.justinbieberneversaynever.com

    7

About Photos Download Believe Believe Deluxe Events

Location Privacy



What is Computer Security?

- Allow intended use of computer systems
- Prevent unintended use that may cause harm

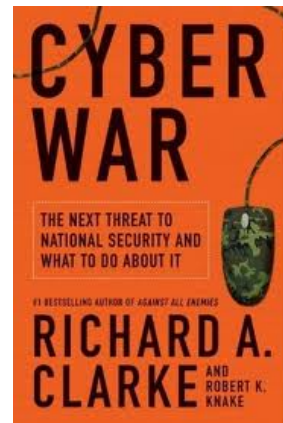
Why Should You Care?

- It impacts your day-to-day life



Why Should You Care?

- It impacts everybody's day-to-day life
 - Millions of computers compromised
 - Millions of passwords stolen



What Is This Class About?

Learn About Security

Make a Difference

How Can You Make a Difference?

- Be a more security-aware user
 - Make better security decisions
- Be a more security-aware developer
 - Design & build more secure systems
- Be a security practitioner & researcher
 - Identify security issues
 - Propose new security solutions

What Will You Learn in This Class?

- Security vulnerabilities
- How to exploit them & defend against attacks
- Fundamental security concepts & principles
- How to architect secure systems
- Security problems & solutions in application areas

Topics Covered in Class

- Secure coding
- Secure architecture concepts & principles
- Mobile security
- Cryptography
- Web security
- Network security & malware

Course Format

Course Format

- Lecture
- Discussion section:
 - Tue 10-11 am (75 Evans)
 - Tue 11-12 pm (75 Evans)
- Office hours:
 - Thu 1-2pm (TA) (611, Soda)
 - Fri 1-2pm (TA) (611, Soda)

Labs

- 6 Labs
- Usually 2-3 weeks long
- Hands-on experience for material covered in class
- Done in groups of two
 - Pick partners soon!

Labs Schedule

- Lab 1: Buffer overflow
- Lab 2: Program testing & verification
- Lab 3: Cryptography
- Lab 4: Network security
- Lab 5: Web security
- Lab 6: Android security

Grading

- Midterms
 - 2 total: 20% each
- Labs
 - 6 total: 10% each
- **No Final**

Next Steps

- <http://www.cs.berkeley.edu/~dawnsong/teaching/f12-cs161>
- Identify group partners
- Discussion sections start 9/4
- First lab 9/5