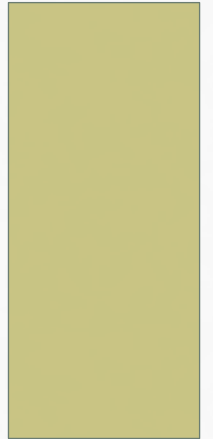


# STUDENT VIEWPOINT

BRIAN ZHANG



# ABOUT ME

- Freshman in HCC
- Going to UMCP Spring semester for Computer Engineering
- Won First place in USCC Cyber Camp in Maryland
- Won First place in National High School Network Security Competition
- Interned at JHUAPL (VES department)
- Active bitcoin miner
- Owns domain name [www.xbrianzhangx.com](http://www.xbrianzhangx.com)

# KEEP IN MIND

- I am just a student and not a current employee in the Cyber Security field
- What I say is based on competitions I have been in.
- I will take short questions during this presentation, but there will be a question section for in-depth and longer questions.

# WHY CYBER SECURITY?

- To have goals you must have desires.
- What desires lead to goals in Cyber Security?
  - Desire to learn about computers
  - Desire to know how to protect your data
  - Desire to be the cool (White hat)hacker or computer forensic analyzer

# SO NOW WHAT GOALS CAN YOU SET?

- Competitions
- They allow you to demonstrate your abilities.
- They also help get you internships and scholarships.
- Of course there are other legal goals you can set but competitions appear to be to easy way into cyber security.

# WHAT MADE ME SUCCEED IN CYBER SECURITY COMPETITION

- Computer oriented friends
- Taking computer related classes
- Getting PWNED
- Knowing how to Google

# COMPUTER ORIENTED FRIENDS

- Most my friends are electrical engineering and computer science majors.
- Hanging out with them leads to conversations related to programing and security.
- I learn from them and they learn from me

# TAKING COMPUTER RELATED CLASSES

- Took all the computer science classes at Centennial High School.
- Took the Cisco PC Systems Academy at Applications and Research Lab.
- Took up school time to intern at JHUAPL in senior year of high school.

# GETTING PWNED

- I had bunch of my computer systems and online accounts compromised
- First these things got me angry but they also made me curious
- This me lead to research how I got PWNED.

# KNOWING HOW TO GOOGLE

- The internet contains lots of information! Use Google to find what you want
- Use it to learn about cryptography and PKI. (No guaranty that you can understand all the math)
- Many useful PDFs and online tutorials to learn programming.
- Interactive sites to learn about web security like [Hackthissite.org](http://Hackthissite.org)

# WHAT I THINK YOU SHOULD YOU DO IF YOUR INTERESTING?

- Learn programing of some sort. At least with a high level language like Python or Perl.
- Take as many classes related to computer science or networking as possible.
- Spend an hours or two every week on the computer looking through security blogs/news.
- Maybe join a hacker space? (closest are baltimorenode and unallocated space)
- Maintaining interest is what matters to most.

# WHAT PARENTS CAN DO TO HELP?

- Make sure your child has a computer for herself/himself.
- Make sure you have decent internet connection.
- Keep old computers and let them to install Linux to learn Unix environments or install a windows server. Set up basic HTTP server and get more advanced.
- Good Linux distros are Ubuntu ([www.ubuntu.com](http://www.ubuntu.com)) and Fedora([fedoraproject.org](http://fedoraproject.org)). Backtrack([www.backtrack-linux.org](http://www.backtrack-linux.org)) is good if you want to get into pen testing and computer forensics.
- Free windows Server 2008R2 and 2003 at [www.dreamspark.com](http://www.dreamspark.com) with valid .edu account (Visual studio 2010 is also free)

# WHAT EDUCATORS SHOULD DO TO HELP?

- Be willing to accept some topics are not your expertise and guide your students to someone who knows the topic better.
- Make sure to keep your students challenged.
- Don't limit your self to your curriculum try to do

# QUESTIONS?

- Ask away

