David Ko
vsxx.github.io

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Education

- **University of Texas**   Austin, TX
  BS, Computer Science   *August 2009 - August 2015*
  - Relevant courses: Principles of Computer Systems (OS), Information Assurance and Security, Computer Security, Cryptography, Data Visualization and Warehousing.

Work Experience

- **M&D Distributors**   Humble, TX
  Internship for IT Security   *June 2014 - August 2014*
  - Maintained network and computer security in IT.
  - Used various resources and software such as Spiceworks, WatchGuard, and WireShark.

School Projects

- **PintOS**   Austin, TX
  University of Texas GDC Computer Lab   *August 2014 - December 2014*
  - Semester long project in which we implement parts of the PintOS operating system.
  - Implemented: Basic Shell, Threads, Virtual Memory, User Programs, File System.
  - PintOS coursework was done in groups of 4 throughout semester.
  - Source code, information, and git logs can be found in my portfolio.

- **AES Implementation**   Austin, TX
  University of Texas GDC Computer Lab   *June 2015 - July 2015*
  - Implemented AES-256 in Java following the AES Standard in ECB mode.
  - Implemented each part of the AES: subBytes, shiftRows, mixColumns, and addRoundkey.
  - Learn full understanding of Rijndael's AES Standard.

- **Other Projects**
  UBC and at home   *1999-2000*
  - Designed and debugged a digital voltmeter using a Motorola 68000 processor.
  - Added features to the digital voltmeter including scrolling text, and a warning buzzer, which won 3rd place in the IEEE Voltmeter Competition.
  - Constructed and debugged a digital clock on a PCB for PHYS 159.
  - Built an AM short-wave radio at home, on a 2" $\times$ 2.5" piece of breadboard.

Awards

Faculty of Engineering Scholarship ($2,300)	2002
Ontario Graduate Scholarship (OGS) ($15,000)	2002-2003
Industrial NSERC Undergraduate Research Award ($4500)	2002
UBC OSI (Outstanding Student Initiative) Entrance Scholarship ($10,000)	1997-2002
Engineering Physics 50th Anniversary Scholarship ($600)	2001
Anne. M. Mack Scholarship ($500)	2001
NSERC Undergraduate Student Research Award ($4000)	2000
United Food and Commercial Workers Union, Local 1518 Scholarship ($1000)	1998
Top Senior Math Student Award	1997
B.C. Provincial Exam Scholarship ($1000)	1997
B.C. Government Passport to Education ($800)	1997
James Whiteside Elementary Parent Advisory Committee Award ($200)	1997

Skills

Languages: C/C++, LaTeX, Java, SPICE, MEDICI (TCAD), VHDL/VHDL-AMS, 68000 and PIC Assembly

Operating Systems: Linux (Debian), Solaris, UNIX, MacOS X, Windows 95/98/NT/2000/XP

Applications: Mathematica, MatLab, GNU Octave, LabVIEW, Cadence, LaTeX, OpenOffice, MS Office XP, OrCAD schematic capture & PCB layout, Altera MAX+PlusII VHDL FPGA Design

Lab Skils: Digital/Analog Scopes, Spectrum Analyzer, Function Generators

Fab Skills: PECVD and sputtering deposition, UV lithography, wet etch, dry etch (RIE), mask aligner, step profiler, ellipsometry, infrared spectroscopy, x-ray diffraction

Miscellaneous: software configuration management, strong verbal and written communication skills, excellent troubleshooting and debugging skills, exceptional problem solving skills, good teams skills

Interests

Academic: Solid state devices, nanotechnology, photonics, microcontrollers, RF/wireless

Sports: Playing hockey and swimming

Computers: Currently maintain two official Debian Linux packages, Mozilla beta tester, enjoy using and learning Linux systems, Building electronics projects at home, and writing JAVA software

Musical: Playing guitar and piano

Membership: Student member of IEEE since 1998, Materials Research Society member since 2002

Other: Reading novels