DAVID CHEUNG

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EDUCATION

OHIO STATE UNIVERSITY
Ph.D., Electrical Engineering, 1970
Solid State Electronics, Control & Communication
Special Topics: PIN Diode and Junction Theory, Antenna and Wave Guide, Analog and Digital Electronic, Ultra high frequency measurements of Transistor parameters, Computer simulation of PIN Diode Junction properties.

OREGON STATE UNIVERSITY
MSC, Electrical Engineering, 1967
Solid State Electronics -- IC Fabrication, Control & Communication.
Special Topics: Multiple Junction Depth IC Fabrication Process

OREGON STATE UNIVERSITY
BSC, Electrical Engineering, 1965
Solid State Electronics and Communications.
Special Topics: Low level chopper stabilized amplifier, won IEEE Senior Project Award.

EXPERIENCE

TEXAS STATE UNIVERSITY
Adjunct Professor, 2016 to PRESENT
Taught the following courses:
CS2315-005 Ethics for the Information Age (Fall Term 2016)
CS2315-251 Ethics for the Information Age (Spring Term 2017)
CS2315-251 Ethics for the Information Age (Fall 2017)
CS2315-251 Ethics for the Information Age (Spring Term 2018)
CS3598-265 Software Engineering (Spring Term 2018)
CS2315-251 Ethics for the Information Age (Fall Term 2018)
CS2315-251 Ethics for the Information Age (Spring Term 2019)
CS3598-265 Software Engineering (Spring Term 2019)
CS2315-251 Ethics for the Information Age (Fall Term 2019)
CS2315-251 Ethics for the Information Age (Spring Term 2020)
CS3598-265 Software Engineering (Spring Term 2020)
CS2315-251 Ethics for the Information Age (Fall Term 2020)
CS2315-251 Ethics for the Information Age (Spring Term 2020)
Completed Teaching Online at Texas State training (Fall 2020)
CS3598-265 Software Engineering (Spring Term 2020)
CS2315-251 Ethics for the Information Age (Fall Term 2021)
Received Faculty Excellence in Teaching Award (Fall 2021)
CS3598-265 Software Engineering (Spring Term 2021)
CS2315-251 Ethics for the Information Age (Fall Term 2022)
Completed EEO & Title IX training (Spring 2022)
CS3598-265 Software Engineering (Spring Term 2022)
Completed Cybersecurity training (Spring 2023)
CS2315-251 Ethics for the Information Age (Fall Term 2023)
CS3598-265 Software Engineering (Spring Term 2023)
CS2315-251 Ethics for the Information Age (Fall Term 2024)
CS3598-265 Software Engineering (Spring Term 2024)
CS2315-251 Ethics for the Information Age (Fall Term 2025)
CS2315-251 Ethics for the Information Age (Spring Term 2025)
Completed TXSR AI Awareness training (Fall 2026)

ITT TECHNICAL INSTITUTE
Adjunct Professor, 2014 to 2015

Taught the following courses:
ET3330 Telecommunications Technology
ET3380 Power Electronics
ET3430 Fiberoptics Communication
ET3480 Electrical Systems Design
ET4560 C++ Programming
ET4580 Green Energy Technology
ET4771 Electronics Circuits Design
ET4799 Electrical Engineering and Communications Technology Capstone Project

THE CHURCH IN ROUND ROCK, LLC
Project Manager, 2022 to 2026
Manage a 5 acres commercial building project as a general contractor. Proficient in Auto Cad Civil 3D, Envisioneer 16, Quick Book accounting, Microsoft Project software packages. Design building architectural layout, coordinate project construction with sub-contractors, manage daily accounts payable and receivable, coordinate with contractors and city inspectors. Project completed and received Certificate of Occupancy in May, 2026.

Networking, Audio/Visual and Acoustics Engineer, 2026 to Present
Designed and implemented Auditorium Audio and Visual system for The Church in Round Rock including digital sound system and video camera mixers and big screen displays. Designed and implemented whole facilities networking including security systems including networked security camera systems. Implemented wide area networking with mixed static IP and multiple SSID WIFI6 networks.

ARRIS SYSTEMS LLC
Independent Contractor, 2017 to Present
Developed a Health Monitoring and Treatment system based on TI CC5962 series microcontroller with WIFI/Bluetooth interface to iPhone or Android based smart phone. System includes analog sensors and digital systems to monitor body resistance for non-invasive detection of internal organ health and immune system functions. System generated multipoint electrical impulse-based health treatment. The system can automatically scan for treatment points and interact with user for treatment options such as treatment points, intensity, and duration using simple push buttons and color LCD screen display.

Independent Contractor, 2010 to 2017
Developed a smart watch based on TI CC2540 series microcontroller with WIFI/Bluetooth interface to iPhone or Android based smart phone. System includes analog sensors to monitors heartrate, temperature, steps, calories, sleep pattern, and fall. System generates auto-innitiated alarm calls to 911 service when patient fall and can not get up.

SOFTEX INC
Senior Software Engineer, 2001 to 2010
Wrote Phoenix BIOS for various clients such as Dell, HP. Wrote Windows Device Drivers for Dell, HP, Fujitsu. Co-inventor patent granted in 2012.

TANISYS TECHNOLOGIES
Senior Engineer, Oct, 1999 to June 2000
Design touch sensitive mouse pad and discrete touch sensitive keypad. Co-inventor for patent granted in 2003.

ARRIS SYSTEMS
Independent Contractor, 1995 to 1999
Developed a high-speed home based printer-port network adapter including protocol, patent search, patent application, hardware design, Windows 95/98 NDIS drivers, a user friendly auto-install program, user's guide and installation manual for the product. Product currently is licensed to others for marketing.

Experience of LSI chips designs using Xilinx FPGA, Verilog, and Viewlogic system.
LIGHTEK
President, 1987 to 1995
Organized, funded, directed and operated a small business that manufactures and sells proprietary parallel printer port expansion chassis. Responsibilities include setting of company objectives and sales goals, ensuring ethics and integrity, establishing quality control

procedures, setting up manufacturing process, training engineers, programmers, and technicians, setting up company policies. Installed and trained personnel in other networks such as Tapestry, Lan Manager, Lantastic.

UCI CORPORATION
President, 1983-1987
Organized, funded, directed and operated a joint venture with ACME Cleveland Corp in engineering a Factory Monitoring System. Responsibilities included governance and ethics on Board of Directors, operations of the company such as -- setting of objectives and sales goals, establishing quality control procedures, setting up manufacturing process, training engineers, programmers, and technicians, setting up company policies and operating standards.

Designed and marketed a series of add-on products to the Zenith Z100 computer to transform it into a PC clone, including a PC compatible BIOS, PC compatible hard disk and floppy disk controller, PC compatible video controller, PC compatible Ethernet controller, 2MB DRAM memory board.

Organized and completed training of 5 US Airforce IT personnel on:
Microprocessor architecture and operations
Network fundamentals
Maintenance of Office Network Systems

FIRESTONE TIRE AND RUBBER COMPANY
Project Engineer, 1972 -1982
As a Senior Engineer trouble-shoot and maintain a relay-TTL logic Factory Annunciator and Phone Communication System. Became head of a group specialized in Computer Controls.

SMITH ELECTRONICS
Senior Engineer,1971-1972
Design Array Antenna using Top Loading Antenna. Successfully designed a radar directional array antenna for Phillips Electronics to be used on aircraft carriers.

CLEVELAND INSTITUTE OF TECHNOLOGY
Engineering Writer, 1970-1971
Write Advanced Electronics Home Study Course for CIT. Successfully written two courses on advanced electronics and solid state electronics. Interfaced with home study students on correspondence course. Materials include course texts, figures, illustrations, questions, answers, examinations, grade examinations.

SKILLS

ANALOG DESIGN

- Analog/Digital Design
- Keyboard/Mouse design
- LCD graphics and character panels design and programming
- Xilinx FPLD XACT development system, XC9500, XC3000-8000 series
- ACTEL Design Series FPGA, EPLD, ACT1, ACT2, ACT3
- Lattice Semiconductors Isp Synario System series
- QuickLogic pASIC series FPGA

DIGITAL DESIGN

- Embedded Systems Design
- Intel/Pentium Chip sets and mother board design
- PCI and ISA Bus Bridge/System Design
- Industrial controls including programmable controllers
- Micro-computer Architecture and Micro-processor controls
- PC Design & Maintenance
- Microcontroller embedded system designwith analog interface.

NETWORK DESIGN

- Local Area Network
- Wide Area Network

SOFTWARE DESIGN

- Fluent in Languages including Fortran, PL I, Basic, Visual C++, Turbo Pascal
- Visual Studio, InstallShield 2012
- Assembly Language for Intel Processors (All X86/87/Pentium), Zilog Z8, ICE-Z8, Microchip PIC16CXXX, PIC12C508/9, Atmel AT90S1200 Embedded Microcontroller, TI MSP430 Microcontroller
- Simulation packages such as PICMASTER Emulator, MPASM, Microsoft Macro Assembler
- Debuggers such as AmericanArium, MSP_FET
- Windows Development Kit - SDK, DDK
- Viewlogic Procapture/Sim/Wave, Simulation and analysissystem
- Altera MAX+PLUS II Development System
- Viewlogic Verilog/VHDL compiler
- TI Code Composter Studio compiler and debugging system
- Atmel AVR Student microcontroller development system

PC BOARD LAYOUT DESIGN

- Auto CAD, Generic CAD, Design CAD
- PADS Perform PC Board Design and Layout package
- Cadence CAD System
- AudoDesk EAGLE
- PCB Assistent