

Education

**California State University,
Dominguez Hills**

Fall 2017 – May 2019

B.S. in Computer Science, In-major GPA: 3.3

Coursework: Networking; Security; Algorithms; Data Structures; Databases; Operating Systems

Projects

Secure Messaging Android App

Senior Project

Encrypted messages embedded into image files enables private message sharing through memes:

- Uses RSA encryption algorithm and 2048-bit public/private key pairs.
- Android KeyStore creates and manages private key (the app can use the key but not read it).
- Open source steganographic algorithm to embed the message into the image file.
- Used SQLite database to store friendly public keys acquired from scanned QR codes.
- Public keys are easily shared in person via QR-code or via URL/URI.

Homelab (Headless Ubuntu):

- PLEX Media Server (personal content streaming for myself and friends/family)
- Automated media download services with local web interfaces.
- File/filesystem management scripts.

Raspberry Pi 3/Zero:

- Discrete personal OpenVPN server
- Local-network-wide ad-filtering and traffic monitoring (DNS service)
- Wireless print server (enabling a wired printer to be wireless)

'Intelligent' Robot Vehicle

Built a robot vehicle that would process input from hardware and make an "intelligent" decision. Written in C for the Lego Mindstorms framework, interfacing with hardware "eyes" and "ears," implementing Psychology concepts of human cognition and decision-making.

Tech & Skills

- **Languages** Java; Python; C++; C; SQL; Bash
- **Networking** Hands-On LAN administration: Routers; Repeaters; Modems; VPN Clients & Servers; Network Printers; Samba Shares; SSH Remote Access; Firewalls; Port Forwarding
- **Security** Asymmetric/Symmetric encryption; Cryptography; Network access control; Pen-testing
- **Operating Systems** Linux {Ubuntu, Ubuntu Server, Raspbian}; Windows {10, 7, XP}
- **Other** Virtual machines & Docker; Microsoft Office Word & Excel; Adobe Photoshop & Illustrator

Additional Experience

Driving Instructor (2015-2020): Safety 1st Driving School. On-the-road instruction on how to drive.

Freelance Tech Support (2010-2015): Provide hardware/software tech support to friends and family.