# GABRIEL MEDINA

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#### **EDUCATION**

# California State University, Dominguez Hills

Fall 2017 - May 2019

- B.S. in Computer Science, In-major GPA: 3.3
- Undergraduate Coursework: Networking; Security; Algorithms; Data Structures; 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.
- Public keys are easily shared in person via QR-code or via URL/URI.
- Used SQLite database to store friendly public keys acquired from scanned QR codes.

### **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 and software tech support to friends and family.