# Seran Gemechu

Sdiriba33@gmail.com | (408)-858-9537 | San Jose, CA | seran72.github.io/Gemechu

## COURSEWORK

- OOP, Data Structures & Algorithms, Machine Learning, Computer Architecture, Operating Systems
- App Dev, Linear Algebra, Software Engineering, DBMS, Computer Organization, Computing Theory

## TECHNICAL SKILLS

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|---|---|---|
| Java, Python, C, Ansible, JS, React, PostgreSQL, Java Spring, Maven, x86 ASM, Verilog | Azure, MS SCCM, Jamf pro, Intune, Cisco vManage, Meraki, Scrum, JIRA, Docker, Git, IntelliJ, VS code | Linux, Win, Mac, Wireshark, VMware/VB, Nmap, Aircrack-ng, DHCP, DNS, VLAN, TCP, UDP |

## WORK EXPERIENCE

**Technical Support Engineer Intern**          **Tesla,** Fremont CA          **May 2022 – Dec 2022**
- Tier 3 IT support.
  - Develop help sheets and FAQs for end users.
  - Tesla center site visits and IT rack refreshments.
  - 24/7 tech support for Tesla network infrastructures.
  - Laptop, Kiosk, VFCS's and other electronic systems troubleshoot.
  - Managing and configuring company devices via Intune, JamfPro, Azure Active Directory etc.
- Developed a script in Ruby programming to automate the process of locating deployed Tesla owned iMac computers and re-assigning the correct hostnames on all by utilizing the company's device-*location AP*I.
- **Single NIC Solution Project -** Designed and developed a script that enabled my team to:
  - Remotely connect and disable the un-used ethernet port on all deployed Tesla Vehicle Firmware Caching Servers or VFCSs.
  - Utilize a *single* network interface cable when setting up and deploying the Caching Servers (Intel NUC 10s) at Tesla centers across the United States, and Mexico.
  - Reduce the time and hardware needed to deploy these VFCSs.
- *Utilized*: Ansible, Python, Bash, HashiCorp Vault, SSH, Teleport, Linux

**Resident Advisor**          **CSU, Sacramento,** Sacramento CA          **Aug 2021 – May 2022**
- Create, market, and lead student centered hall programs to promote social, education, diversity.
- Enforce all College Living policies, promoting academic excellence, and encouraging involvement.

**Apple Repair Technician**          **Experimax,** San Jose CA          **Jan 2020 – Feb 2021**
- Customer support
- Diagnose and troubleshoot smartphones, tablets, wearables, computers (windows, Mac OS, Linux), and other electronic systems.

**Electronic Technician**          **UbreakiFix,** San Jose CA          **May 2018 – Aug 2018**
- Install and configure hardware, software, and other peripherals
- Data Recovery, Malware Analysis, LCD/battery replacement and more.

## PROJECTS

### WPA/WPA2 Hacking
- Wi-Fi password cracking by capturing Handshake packets using a wi-fi network adapter, wifite, aircrack-ng, nmap, and other wireless pen testing tools.

### AI-based Network Intrusion Detection System
- Developed a machine learning model that detects and protects a computer network by filtering out malicious connections and maintaining legitimate ones through predictive learning. (**Accuracy: 97%**)
- *Utilized*: Python, Google Colab

### Vendor Management Portal
- Worked with a team of 7 other developers to create a vendor portal web application for Harris School Solutions. The web app allows vendors to sign up, sign in, upload and transfer invoices electronically, resulting in improved data validation, paperless and faster payment processing period.
- *Utilized*: PostgreSQL, ExpressJS, ReactJs, NodeJs, Docker, keycloak, PassportJS

## EDUCATION

**California State University Sacramento** – Sacramento, CA          **Graduated:** December 2022
- Bachelor of Science in Computer Science
- Dean's Honor List