



# manisaeidi

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US Citizen



## Education:



M.S. ELECTRICAL  
ENGINEERING  
SEP 2021 - PRESENT

• **GPA: 4.0 – Concentrations in Power and Computer Engineering**

- Inspected electromagnetic waves in radio-frequency communications
- Analyzed faults in power systems and modeled protection relays
- Designed application-specific integrated circuits using VHDL & FPGAs



B.S. EARTH & PLANETARY  
SCIENCES  
SEP 2013 - JUL 2017

- Wrote thesis dissertation on Solar PV systems & efficiency rates
- Researched electrical engineering and computer science topics
- Led a club in hosting a large banquet event with over 300 attendees
- Led a team of four members in coding complex Java applications

## Skills:



INDEPENDENT  
STUDENT  
NOV 1995 - PRESENT

- **Hardware:** Oscilloscope, Multi-meter, FPGAs, Integrated Circuits, myDAQ, LabVIEW, Soldering, Microprocessor, Microcontroller, Arduino, Raspberry Pi, Jetson Nano
- **Programming:** Python, Javascript, Matlab, C++, VHDL, MongoDB, Express, React, Node.js, Data Structures & Algorithms, MySQL, Git, Pandas, Jupyter, OpenCV, Numpy
- **Software:** PSpice, LTSpice, ETAP, Linux, AutoCAD, Solidworks, AWS, Azure

## Experience:



AVIONICS  
VOLUNTEER  
JUN 2022 - PRESENT

- Firefighters have issues transporting water + supplies during large fires
- Assisted a team to develop a primary aircraft, drones, & GTVs for transporting H2O
- Helped select & install electronic components + RF communication system
- Incorporated a vSLAM algorithm on drone to land autonomously on a target



VOLUNTEER  
INSTALLER  
AUG 2017 - JUN 2020

- Disadvantaged communities were paying high electricity bills
- Designed PV CAD Blueprints according to CA Fire Code law/policies
- Helped install free full-scale PV systems with BOS components
- Learned how to create efficient solar systems that would maximize ROI

## Miscellaneous Projects:

INDEPENDENT  
STUDENT  
OCT 2019 - PRESENT

- Built and programmed a dual-axis solar tracker and phone charger
- Utilized Arduino to program a responsive LED ambient backlight
- Coded Secure SHA-1 Hash Password Checker using Python hashlib
- Created Spotify Song Rank Predictor Model via Jupyter Notebook

## Organizations:



ORGANIZATION  
MEMBER  
OCT 2013 - PRESENT

- IEEE HKN (Eta Kappa Nu) – Honor's Society – Coordinated Study Sessions
- Iranian Student Network President – Hosted Large Banquet Events
- Red Cross Youth Intake Manager – Connected High School Clubs
- Society of Asian Scientists & Engineers (SASE) Alumni Member