Mani Saeidi

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Objective

Dedicated electrical engineering graduate student with experience utilizing industry-standard tools through coursework & autonomous projects. Documented track record of leveraging my programming & critical thinking skills to engineer automated long-term solutions. Seeking a position valuing continuous growth & intellectual exploration while coordinating with others.

Education

California State University, Northridge | Northridge, CA *August 2021 – Present*
Master of Science in Electrical Engineering, GPA 4.00 Expected Graduation, December 2023
Concentrations in Power, RF, Controls & Computer Engineering

De Anza College | Cupertino, CA *December 2020 – June 2021*
Courses in Machine Learning + Data Science + Python, GPA 4.00

Santa Monica College | Santa Monica, CA *August 2018 – June 2021*
Post Baccalaureate in Electrical Engineering, GPA 3.81

UC Santa Cruz | Santa Cruz, CA *August 2013 – June 2017*
B.S. in Earth Science: Thesis Dissertation in Solar Energy + PV Technologies

Skills

Programming: Python, Java, C++, VHDL, JavaScript, HTML, Node.js, AngularJS, SQL, NumPy, Pandas, OpenCV, React, Express
Platforms: Linux (Ubuntu, Slackware, Debian, Arch), PC, Mac, IOS, Android, Cadence, Smith Charts
Hardware: Raspberry Pi, Arduino, FPGA (Zybo), Jetson Nano, Microcontrollers, ICs, Oscilloscope, DMM, myDAQ, Signal Gen
Software: MATLAB, Simulink, LabVIEW, AutoCAD, Unreal Engine, PSpice, ETAP, Jupiter, SolidWorks, OpenCV, GitHub, Vivado
Professional Organizations: Eta Kappa Nu IEEE (HKN), President of Iranian Student Network (Hosted Large Banquet Events)
Communication: Optimistic Collaborator, Technical Reports, Presentations, Schematics (Wiring + Electrical), IEEE Reports
Languages: English (fluent), Farsi (Persian) (native), Spanish (beginner), French (beginner)

Experience

California State University Northridge (CSUN) | Northridge, CA *September 2022 – Present*
Department Tutor for ECE 351

- Planned & executed pedagogical sessions about digital controls & signal filtering with focus on student learning outcomes.
- Improved students' academic success by delivering personalized tutoring sessions based on their individual learning styles.
- Facilitated mastery of advanced engineering concepts, including discrete system models, Z-transforms, Fourier Analysis, impulse response, convolution, and state variables for linear systems, through dynamic and targeted tutoring techniques.
- Collaborated with professor to ensure thorough student readiness, bolstering student confidence in engineering topics.

UNITOX® - The #1 FDA-Approved BOTOX® Syringe | Los Angeles, CA *September 2017 – September 2022*
Lead Project Engineer & Full Stack Web Developer

- Created a new type of syringe via Solidworks to optimize customer experience and designed a pitch + presentation for Evolus (Jeuveau) in order to secure a long-term contract worth millions of dollars, raising annual profits by over 800%.
- Developed a prototype machine learning model to scan for wrinkles & see how many units of BOTOX® should be injected.
- Sped up conversions by 3x by designing + coding a website with automated order management + email marketing system.

Projects

CSUN AERO *August 2022 - Present*
Volunteer in the Avionics Department – Helping Firefighters Transport Water via Autonomous Aircraft
Flying Wing Drone Releasing Smaller Autonomous Aircrafts Carrying Ground Transport Vehicles with Obstacle Detection & H_2O

- Assisted drone team members in diagnosing & optimizing both drone flight time + performance under various environmental conditions like in crowded urban areas or extreme weather.
- Supervised the development of autonomous aircraft landing simulations & comprehensive reports: detailing research on various avionic components like flight controllers, motors, & ESCs to build an aircraft outperforming industry standards.
- Efficaciously integrated and modified drone communication protocols like QGroundControl, MAVSDK-Python, MAVLink, and MAVProxy to consecutively ameliorate landing parameters based on each flight.

Load Flow Analysis of IEEE-33 BUS Radial Distribution *September 2022 – December 2022*
Software Lead **-** Programmed & debugged MATLAB algorithm for Load Flow Analysis with Backward/Forward Sweep method.

Dual Axis Solar Tracker *October 2019 – October 2020*
Team Lead for PV Electrical Engineering Project *- Autonomous Solar Module Following Light with DC Charging Capacity*

- Built and programmed a dual-axis solar tracker via Arduino to track light and charge a portable RC car.
- Reinforced the autonomous tracking system by integrating seasonal location data to predict sun's position based on time.