Rohollah Mazrae-Khoshki

San Jose, CA
-Email me on Indeed: http://www.indeed.com/r/Rohollah-Mazrae-Khoshki/1f3508c6518c3ba5

• PhD in Electrical and Computer engineering with +10 years' experience in design, product and development of electrical and electronic components and systems.
• Experience in the design and implementation on Matlab and mixed signal electronic circuits and systems, design and simulate circuit diagram on LTspice
• PCB layout design on OrCAD and Kicad, SI (Signal Integrity)/PI (Power Integrity) design analysis
• Experience on Advanced Driver Assist Systems in automotive industry included park assist system, camera, Lidar and radar and control and power-delivery systems and can data analysis with CANoe, CANalyzer and CANdb++ (Vector) and Familiar with DOORS.
• Experience and knowledge of high-performance power conversion and instrumentation, DC/DC converter (Buck, Buck-Boost and flyback convertor), variable frequency drives and power electronics.
• Experienced in development of technical studies, investigations, designs, and cost estimates.
• Provide technical leadership within multidisciplinary team environments, hard worker with strong track record of completing projects on time and within budget.

Work Experience

Lead Hardware Electrical Engineer

Zume Inc - Mountain View, CA
August 2019 to July 2020

• Design, Integration, verification and testing of mixed signal electronic circuits
• SI(Signal Integrity)/PI(Power Integrity) analysis
• Design circuit diagrams and simulation on Cadence OrCAD and PCB layout, PCB layout design on Kicad
• Experience on validation circuit design interfaces: USB, I2C/SPI/UART, CAN, Analog and digital IO
• Training course of HFSS (High Frequency Structure Simulator)

Sr Electrical Engineer

Hybrid Design Services Inc - Troy, MI
August 2018 to June 2019

• Design, Integration, verification and testing of electronic circuits on prototype Battery Management Systems (BMS) unit
• Experience with OrCAD schematic capture and Allegro PCB layout
• Experience working in a laboratory environment; signal generator, oscilloscope, spectrum analyzer, ect.
• Design and development of BMS and High Voltage Systems such as Batteries, Ultracapacitors, chargers for electric vehicles, hybrid-electric vehicles, and renewable energy systems.
• Working on vehicle Integration (Packaging, Interfaces, Communication, Diagnostics, etc.)
• Developing Hybrid/Electric vehicle system engineering documents (Requirements & Specifications, DFMEAs, DVPs, etc.)
• Developing communication and control systems for advanced vehicle, battery, charging, and power distribution systems.

Sr Electrical Engineer

FCA US LLC - Auburn Hills, MI
July 2015 to June 2018

• Design and Release Park Assist System and GNSS (Global Navigation Satellite System) module
• Experienced in Vehicle Communication Network (CANoe, CANalyzer, ETAS, and NI CDaq) Familiar with DOORS
• Bench testing methodology Schematic capture and PCB design experience, Hands-on layout and supervision of PCB design for circuit designs
• Experience on Implementation and Integration of Park Assist system on vehicles
• Experienced in Advanced Driver Assistant Systems and sensors such as Smart Camera, Radar and Lidar
• Component Specification and Validation, Module/Sensor Packaging, DV (Design Verification)/ PV (Product Validation), Test and debug electrical and system level

Electrical Engineer

Continental Automotive Systems, Inc - Auburn Hills, MI
January 2015 to July 2015

• Design, implement a prototype project and published a patent for Continental Automotive Systems Inc: "Apparatus and method for opening a vehicle gate using a camera"
• Experienced in Automotive industry, Advanced Driver Assistant Systems and sensors such as Smart Camera, Radar and Lidar
• Working Experience as Electrical engineer in Computer Vision and Image Processing in Automotive Industry
• Experienced in Vehicle Communication Network (CANoe, CANalyzer, Bus master, ETAS, and NI CDaq)
• Familiar with 360° surround view camera system, control unit and FPGA board

Teacher Assistant

Oakland University - Rochester, MI
August 2012 to December 2014

• Dissertation titled: "improved Automated License Plate Recognition (ALPR) system"
• Experience with Verilog design and simulation and implementation in FPGAs, with Altera quartes FPGA board (DE-115) and Xilinx Spartan IV board
• Experienced in MATLAB (Simulink), Lab view and programming (C/C++, VHDL)

Teacher Assistant on below courses:

Electrical Engineer

Embedded System Verification and Validation - Tehran, IR
October 2007 to August 2012

• Embedded System Verification and Validation (ECE 573), Embedded System Design w/FPGAs (ECE 576), Digital Logic/Microprocessor Design (ECE 738), Introduction to Power Electronics (ECE 429), Design/ Analyze of Electro-mech System (EGR 280)

MAPNA GROUP, MECO Company, Tehran, Iran
Title: Electrical Engineer 10/2007 - 08/2012
• Worked by Medium and High voltage power system including motor-control system, motor drive system (power semiconductors - IGBTs, Thyristors, MOSFETs, and their gate drive and protection circuitry), transformers, overcurrent protective devices, circuit breaker and switchgear.

• Experience on power management system, DC/DC convertor: Buck, Boost, Buck-Boost convertor and Flyback convertor
• Designed and Installed of Static Excitation Equipment (SEE) and Startup Frequency Converter (SFC) of power plant synchronize generator using PLC(S7) through the SIMATIC Manager software and observed on manufacturing and testing of the SEE and SFC systems.
• Design and Analysis Electrical power system on ETAP
• Supervised on commissioning process and quality control of components in SEE and SFC systems in gas and combined power plants

Education

PhD in Electrical and Computer Eng
Oakland University
August 2012 to April 2016

M.Sc. in Electronic Engineering
Razi University
September 2006 to July 2009

B.S. in Electronic Engineering
Azad University
September 1999 to July 2003

Skills

- Python
- MATLAB
- Computer Vision
- C/C++
- FPGA
- Programmable Logic Controllers

Assessments

Intermediate spreadsheets with Microsoft Excel — Familiar
April 2019

Measures a candidate's knowledge of intermediate Microsoft Excel techniques including effectively writing and applying conditional formulas.
Full results: Familiar

Problem solving — Expert
April 2019

Analyzing relevant information when solving problems.
Full results: Expert

Work style: Conscientiousness — Highly Proficient

May 2020

Tendency to be well-organized, rule-abiding, and hard-working
Full results: Highly Proficient

Supervisory skills: Interpersonal skills — Familiar

June 2019

Maintaining productive team relationships by identifying conflict and settling disputes.
Full results: Familiar

Software developer skills — Familiar

June 2020

Designed by engineering managers and real-world employers, this test gives you hard data points to evaluate technical competency
Full results: Familiar

Analyzing data — Highly Proficient

June 2020

Interpreting and producing graphs, identifying trends, and drawing justifiable conclusions from data
Full results: Highly Proficient

Software developer fit — Proficient

July 2020

Measures the traits that are important for successful software developers
Full results: Proficient

Work motivation — Proficient

June 2020

Level of motivation and discipline applied toward work
Full results: Proficient