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SYSTEM DESIGN AND INTEGRATION ENGINEER

Born to solve complex engineering problems involving electronics, firmware, coding, software and present solutions to customers in simple terms. More than 200 system prototypes for data communication, medical devices, automotive industry assembled hands on from proof-of-concept to commercial product levels

PROFESSIONAL SKILLS

Program / Project Management Certification (PgMP) | Six Sigma Green Belt

Full stack developer with professional experience covering HTML, JavaScript, mySQL and noSQL databases, running server-based web apps (technologies include node.js, express.js, react.js, web API)

Expertise in lab test automation with python pyvisa & tkinter**, Modeling** in MATLAB**, Data Analysis** with Origin Pro

PROFESSIONAL EXPERIENCE

Stryker, Flower Mound TX   **10/2020 - current**

Senior Test Engineer

Contract positions at Stryker and SMU between 10/2020 and 12/2021

- Launch two new test stands to run medical devices testing. Develop and execute test plans to pass functional and FDA requirements, created test automation scripts

Infinera, System Manufacturing, Richardson TX   **01/2020 – 10/2020**

Staff Product Engineer

Supervise transition of new amplifier and ROADM products from R&D to contract production in Asia

- Translated 600+ technical design specifications to concise test plans. Designed ATE test stations
- Developed and maintained product documentation including bill of materials (BOM), assembly instructions, drawings, test procedures. Provided live guidance to operators on mechanical assembly and hardware testing. Troubleshooted and updated test automation scripts
- Improved first pass yield from 56% to 84% with continuous improvement. Ensured that all 1600+ measured test and calibration values are correctly recorded in SQL database

Corning Optical Communications, Global Contract Manufacturing, Ft Worth TX   **07/2015 - 09/2019**

Senior Systems Engineer

Built cross-functional lab to show product portfolio to customers, validate performance in complex deployment scenarios, troubleshoot issues reported from field. Joined ISO 9001 audits

- Provided remote and urgent on-site support to LTE customers. Traveled to deployment sites for technical problem debug, product performance and installation process analysis
- Performed failure mode / root cause analysis of Distributed Antenna Systems failed in the field. Achieved field return rate decrease from 11% to 0.6%. Joined early field trials of Corning SpiderCloud RAN
- Transferred process of field failure repairs to contract manufacturer's plant in Mexico for $2.4M / year cost reduction. Installed test system on site, trained personnel. Forced compliance to Corning processes and policies
- Developed strategy to introduce optical fiber for automotive harness to transmit signal from cameras, sensors, V2X and a LiDAR. Over three years, achieve 100% support from both car manufacturers and their OEMs.
- Four Corning Operational Excellence Awards (2015, 2016, 2017, 2018)

Fujitsu Network Communications, Pearl River NY   **05/2013 - 07/2015**

Systems Engineer

Hired to build system test lab from scratch. Developed concept, installed equipment emulating carriers' nationwide network which carries 88 x 100G wavelengths across 2500km

- Created system test plan based on 2300+ customer requirements, run two product release test cycles. Wrote test automation scripts. Validate system and service performance. Reduced test time by 33% / year

- Co-authored new corporate solution engineering process paving path for Fujitsu to start new $100M business
- Created transceiver technology and pricing roadmap for enterprise access and data center interconnect products

Huawei Technologies, Assurance and Managed Services, Plano TX   08/2011 - 12/2012
Sr Marketing and Validation Engineer
Handled broad and ever-changing range of complex Product and Service Management assignments

- Designed Huawei Service Delivery process in North America (NA) from scratch. Achieved 40% increase in revenues and 20% increase in service contracts number. Covered 42 NA customers across all wired product lines
- Performed complex network upgrades and maintenance for national carriers, cable TV companies, internet service providers. Created 20+ Application Notes, distributed to customers
- Launched first ever 100G trans-Atlantic transmission
- Completed 4 NPI - New Product Introductions as Corporate Single Point of Contact in NA. Functions: learn new product features, install new product in the lab, create training materials, organize and present training

Fujitsu, Research and Development, Richardson TX   09/2001 - 08/2011
Researcher, Member of Technical Staff
Managed Next Generation Everything in FLASHWAVE product line over entire life cycle

- Served as Subject Matter Expert (SME) for Executive Leadership, Marketing, Sales, Planning, Engineering, Operations teams. Analyzed technology for new features in product releases, advised when and if they should be introduced to customers
- Led electro-optical systems tests. Hands-on integrated and evaluated 200+ system prototypes. Identified which concepts should be used in future Fujitsu designs. Developed, kept updated optical technology roadmaps
- Tested modules deployed in competitor's systems, identified strength and weakness of their product lines. And 15 years later, Fujitsu is still standing while 100+ competitors went out of business, got acquired or merged
- 6 Technology Transfer Awards, highest corporate technology award. Fujitsu Engineering Excellence Award

EDUCATION

- SMU coding boot camp, (07/2021-01/2022). Program includes JavaScript, Node.js, mySQL, noSQL, React.js
- Bachelor's and Master's in Physics, Moscow Institute of Physics and Technology, Russia. GPA 3.80 out of 4.00
- Gold Medal from Russian Ministry of Education. Awarded to top 0.2% of graduates

GITHUB PROJECTS

- Quiz Creates quiz or work instruction. Allows to verify if user entered data correctly and on time using JavaScript
- FitnessXpress allows a fitness coach to create strength or cardio workouts, upload them server. Uses node.js
- WebStore helps manager of an Internet retail store to track product stock, prices, tags, categories using mySQL
- Budget Tracker allows to track budget and expenses online using noSQL database, express.js

MORE KNOWLEDGE AND SKILLS

- Industry courses or Certifications in Ethernet, DOCSIS, WiFi, access networks. 5G boot camp at Keysight
- Process management: Agile, MS SharePoint, MS Project, ClearQuest, QuickBase, Jira, Perforce
- 8 US patents and 8 Japanese patents issued, 7 presentations at major standards committees' meetings
- **Data Protocols:** Wireless - 802.11 LAN, LTE, Wired - Ethernet, DWDM, DOCSIS, OTN, IP
- Voting Member, IEEE 802.3 Ethernet Standards Committee (2006-2020) influencing direction this $200B / year industry takes with technical presentations in industrial automation, automotive, data center areas
- Volunteer Experience: Administrative Chair, Executive Committee of IEEE Dallas Section (2011-14). Chairman, Dallas Chapter of IEEE Photonics Society. Two IEEE Awards to the Outstanding Volunteer. Member, IEEE & SCTE