

## SYSTEM DESIGN AND INTEGRATION ENGINEER

Born to solve complex engineering problems involving electronics, firmware, 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. Full-Stack developer.

## PROFESSIONAL SKILLS

**Modeling, Coding, Data Analysis:** MATLAB, API, MySQL, Node.js, Express.js, JavaScript, Python, PyVisa, Origin Pro  
**Program / Project Management** Certification (PgMP) | Six Sigma Green Belt

## PROFESSIONAL EXPERIENCE

[Stryker](#), Flower Mound TX

10/2020 - current

Senior Test Engineer

**Two separate contract positions at Stryker and SMU.** Successfully launched new test stand to run medical devices testing. Developed measurement procedures and methodology. Developed and executed test plans, created test automation scripts

[Infinera](#), System Manufacturing, Richardson TX

01/2020 – 10/2020

Staff Product Engineer

**Supervise transition of new products from R&D to contract production in Asia**

- Translate 600+ technical design specifications to concise test plans. Design ATE test stations
- Develop and maintain documentation for each product, including bill of materials (BOM), detailed manufacturing assembly instructions, drawings, test procedures. Provide guidance to operators on mechanical assembly, hardware, electrical and optical testing. Troubleshooting automation scripts that Infinera uses to run test
- Improve first pass yield from 56% to 84% with continuous improvement

[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 trial 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

**Futurewei 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 Futurewei 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. Ran up to 18 concurrent projects
- Performed complex network upgrades and maintenance for national carriers, cable TV companies, internet service providers
- Created 20+ Application Notes, MOP and Upgrade Guides, validated in the lab, 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, including CMOS PIN and APD sensors. Hands-on integrated and evaluated 200+ system prototypes. Identified which concepts should be used in future Fujitsu designs. Contributed to FLASHWAVE system architecture. Developed and updated optical technology roadmaps for the next ~ 5 years
- 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
- Installed and ran live next generation optical transport demos for customers at Fujitsu booths during major EXPOs, differentiating competitive advantage of Fujitsu products
- 6 Technology Transfer Awards, highest corporate technology award. Fujitsu Engineering Excellence Award

## EDUCATION

- [SMU coding boot camp](#), (07/2021-01/2022). Program includes JavaScript, C#, Node.js, MySQL
- 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

## MORE KNOWLEDGE AND SKILLS

- Industry courses or Certifications in Ethernet, Software Defined Networks, DOCSIS, WiFi, access networks. Completed 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