

SCOTT FISHER

6009 Ayr Court, Raleigh NC 27609
Passionate about design engineering
scottfisher8@gmail.com; 919.633.0483

ACADEMIC: North Carolina State University (NC State): (2011)
- B.S. in Aerospace Engineering (Cum Laude)
- Minor in Graphic Communications, concentration in Business, Fundamentals of Engineering certified (2010)

Carnegie Mellon University (CMU): (2012)
- M.S. in Integrated Innovation for Products and Services (A combination of Business, Mechanical Engineering, and Industrial Design)

SKILLS:

DESIGN:

- *Product/User Research:* Gather customer values, facilitate customer driven innovations/upgrades, benchmark competing products, determine stakeholders/target customers, establish design requirements/deliverables
- *Product design:* Idea development, creative thinking tools, product sketching, rapid 3D prototyping, 'Fast fail approach,' facilitate collaboration to cultivate design simplicity, technical strength, product longevity, customer value, solvent financials & optimized aesthetic
- *Design implementation:* Framing and quarterbacking timing/development schedules, cross functional team management, capitalize on available resources/local capabilities, incorporate internal & external expertise, effective communication with suppliers, preventive troubleshooting. **Portfolio Work:** www.scottfisher.us

ENGINEERING:

- *Strategy:* DFM, Six Sigma, Lean manufacturing, D/PFMEA, DFMA reviews, task management and prioritization, being organized and meticulous, critical parameter/system design approach/DOE (custom or classical), supplier qual. PPAP/FAI/Cpk etc
- *Research:* Fully understand product standards (UL, Haz. Loc. req's, ASTM etc), Reverse engineering competition
- *Analysis:* Gasket compression analysis, thermal analysis/resistance/decay, structural analysis/photoelastic stress analysis, tensile tests, vibrate resistance, tolerance stackup, fastener torque/comp, statistics, etc.
- *Mediums:* plastics, silicone, sheet metal, castings, BMC
- *Computer:* SolidWorks (SW), Unigraphics NX, constraint based/boolean modelling, geometric tolerancing/drawings, SW FEA, Jump DOE, MS Project, Excel

WORK HISTORY:

CREE/IDEAL Lighting: Durham NC

- Mech. Design Engineer; Roadway/Area Lighting (2015-18)*
- Lead thermal design/qual for RSWM, RSWL, RSWX
 - Lead driver sub-assembly design/qual. for RSWM
 - Lead RSWS/M/L/XL gasket re-design/development and qualification for IP66 capability
 - Lead RSWS/M optic box re-design for dual product functionality and type 5 optic compatibility
 - Lead RSWS/M/XL structural upgrade to prevent product damage from installation overtorque
 - Lead RSWL/XL optic box re-design for OTS driver compatibility, improved assembly, and IP66 capability
 - Lead RSW stainless steel nut/bolt special
 - Lead OSQ-HO bird spike and various RSW product accessory design and production readiness efforts
 - Lead/direct a variety of production readiness qualification testing for multiple products (HALT/HASS, IP, instron strength/vibe lifetime durability, saltspray, UV, impact, etc), structural and thermal engineering analysis, mechanical drawing creation/approvals, mfg. tolerance analysis, material selection for optimal corrosion/galv. corrosion results, troubleshooting/brainstorming efforts.
 - Leading/facilitating ME facets of production release and qual testing for RSW product family, (RSWS,M,L,XL)
 - Support offsite product builds for production line prep
- Senior ME; Roadway/Area/Industrial lighting (2018-Pres)*
- Develop/initiate ME tools/templates collaboration across Cree for all ME's to facilitate shared learning/improve development efficiencies.
 - Provide general technical expertise to the Cree roadway/area lighting/industrial lighting teams in fabrication methodologies/pursuit for supplier quality (FAI/CPK/GR&R)/troubleshooting/six sigma statistical design/developing experimental procedures/design for manufacturing and assembly/IP66 gasket design/engineering and design

Senior ME; Roadway/Area/Industrial lighting (2018-Pres)Cont

- Aid project management for VuePoint/linear high bay/lead product qualification plans/schedules
- Lead concept design for HXBS re-design effort
- Lead WetLocation linear highbay concept design
- Mentor two ME interns summer of 2019 for general ME best practice/help with specific summer projects

DELPHI Corp: Warren, OH

Lead Mech. Design Engineer, Wireless Program (2014-2015)

- Leading cross-functional team in packaging design/build for two wireless coils within rigid timing constraints/ budget limits. Mechanical engineering lead for customer visits/conferences. First design to incorporate potted components/forced air option in source for increased thermal management. Reduced overall package size by approx. 80%, and reduced mass by 17% of previous vehicle coil design. Simplified coil assembly process.

Design Engineer, Wireless Charging Program (2012-14)

- Designed first ever Delphi 'core' and customer specific 3kW wireless charging power stations within timing constraints (also being used as basis for next gen 6kW station). Met all customer/industry standards, created all station fab drawings, managed fabrication process within budget. Designed wireless charging coils in response to auto company RFP—via inclusion of coil innovations to reduce overall size and mass.

Additional Roles within Delphi (2012-2015)

- Innovation driver: Of nine patent ideas submitted for internal review, two filed with USPTO
- Manager, Wireless Team Intranet: Reorganized and refined data management user interface
- Promoted to manage Wireless umbrella site, Hybrid Car Development Intranet: Re-designed and organized for increased worker efficiency, and improved user friendly interface

SCOTT FISHER

6009 Ayr Court, Raleigh NC 27609
Passionate about design engineering
scottfisher8@gmail.com; 919.633.0483

WORK HISTORY CONT:

Wiser Systems Corp: Raleigh, NC

- R&D Development Engineering Contractor (2013-Present)
- *Lead* - Designed a technology simulation video for client funding pursuit.
- *Lead* - Designed internet of things (IOT) antenna housing with reversible stand/tooling management
- *Lead* - IOT industrial receiver housing with water resistant/ruggedizing case design/tooling management
- *Lead* - IOT consumer based receiver/antenna housing with stand design
- *Lead* - IOT ruggedized commercial IP66/submersion proof antenna and tag with wall/floor/ceiling mount
- *Lead* - IOT employee badge holder design/prototyping
- *Lead* - Product dev. process for all above products; prototyping through production/post-production.

North Carolina State University (NCSU):

- *Lead* design and structural analyst for Outer Inflatable Rigidizable Frame (OIRF) deployable Tumbleweed Mars rover. (2010-11)

Firstmark Controls & ABI: Creedmoor, NC

- *Summer Contractor* (2010-2011)
Created CAD assembly models and helped design a product overhaul in accordance with LEAN manufacturing and 6 Sigma principles, & IP66 ratings.
- CAD Designing/product testing for Hamilton Sundstrand space station hardware
- Designed a new drastically simplified user friendly web-page order code system

Carnegie Mellon University: Pittsburgh, PA

- *Capstone project with LoneStar Trucking*: (2011-12)
RV design for young people using design for innovation strategies including user research, concept mapping, weighted matrices and value opportunity analysis tools
- User interaction design projects
- Rapid prototyping with Arduino and xBee microcontrollers, stepper motors, servos

PATENTS:

- Patent pending for wireless charging graphic user interface structure: DP-320588
- Patent pending for wireless charging alignment method: DP-320566, WO2014077896A1
- Patent pending for tear drop wireless tracking tag design; Application SN: 29/590,897
- Patent pending for antenna stand and cable mount for use in wireless tracking system; Application SN: 29/566,145
- Patent pending for gateway and related adapters powered over Ethernet; Application SN: 62/462,418
- Patent pending for circular/disk wireless tracking tag design; D802589
- Patent pending for lighting fixture pole tenon mounting structure; Application SN: 15/477,435
- Patent pending for CPY Cord grip and conduit hub with liquid drain; Application SN: 15/715,707

OTHER LEAD ROLES:

- Tech lead for team 'CMU' in Delphi innovate comp.
- Coordinated state wide Tacho Lycos logo contest
- Rowing team from 2002-2012 (high school-CMU grad)
- Lead outreach officer on NCSU Rocketry club, coordinated/presented to over 900 people including NASA, Research institutes, Schools, etc. for STEM/rocketry education promotional events

HONORS:

- Promoted to senior engineering role within Cree
- Cree Spot award for excellence/going above and beyond with RSW product family
- Given Delphi Packard E/EA Vehicle Wireless Charging Excellence Award
- Promoted upwards within Delphi engineering (2014)
- 1st place in Delphi innovation competition (team event) (2012)
- 4th place in national NASA University Student Launch Initiative (team event) (USLI) (2011)
- 4th place in national NASA University Student
- Sigma Gamma Tau Aerospace Engineering Honors Society (2010)
- AIAA Senior Design Regional Conference (team event) (2011)
- 1st place in NCSU Design Day competition (team event) (2006)
- NCSU Deans list (2006-11)

SPARE TIME FUN:

- Hiking, white water rafting, mountain biking, Via Ferratas, climbing, camping, adventures, home improvement, Ultimaker FDM/FormLabs SLS prototyping, pressure casting, tinkering, microcontrollers, DIY, travelling, power tools, sketching/drawing, origami, reading, mud runs, obstacle courses, beers with friends!