

Marion Garrett Sisk

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🌐 www.gsisk.com

QUALIFICATIONS SUMMARY

- Over nine years' experience in systems engineering, with four years' experience working with automotive software and software project management: defining requirements, DVPR's, and ensuring compliance with safety-critical requirements before deployment to production.
- Extensive experience debugging complex systems in both software and hardware contexts, including developing automotive SiL and HiL testing systems requiring custom hardware and software designs.
- Six years' experience with MATLAB and Simulink with the Embedded Coder toolbox, and one year with C and C++ in an embedded and self-study setting.
- Two years' experience with Python and PyTorch in a machine learning setting; trained and analyzed transformer-based segmentation models, and some basic fully convolutional networks as part of active academic research interests.

PROFESSIONAL HISTORY

Blue Bird Corporation

Technical Specialist – Software

January 2022 – Present

Design Engineer - Chassis

May 2020 – December 2021

- Managed vehicle body control software development through the entire software lifecycle: defining requirements, communicating specifications with stakeholders, designing, implementing, and presenting DVPR's and test plans, and assisting production deployment and field service efforts including recalls.
- Developed comprehensive QA, test automation, and production build systems for embedded vehicle control software, centered around on-site GitHub Enterprise instance using custom automation tools.
- Lead software architect for new body control software project; improving maintainability and testability; adding simulation-based testing, diagnostics, and fault-tolerance improvements.

Central Georgia Technical College

Program Chair - Metrology

March 2018 – May 2020

Program Chair - Engineering Technology

August 2016 – May 2020

Instructor – Engineering Technology

May 2016 – August 2016

- Developed and deployed innovative instructional methods using OneNote, Microsoft365, and other software tools available to students; held regular training for colleagues.
- Maintained program budgets, student advisement histories, and held twice-yearly industry advisory committee meetings for curriculum review and continuous improvement.

Marion Systems LLC

Founder and Systems Engineer

April 2012 – Present

- Self-funded small business started after college, selling a custom designed and built 3D printers to schools, colleges, and other small businesses around Georgia.
- Designed novel machine layout that greatly improved print stability.
- Current efforts center around commissioned projects for local artists and non-profits.

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EDUCATION

Master of Science in Software Engineering

Kennesaw State University

Graduated: May 2024

- Coursework completed in data structures, advanced algorithms, classical and modern artificial intelligence, requirements engineering, and embedded systems.
- Research focuses on application of AI/ML in an automotive/ADAS context; specifically, with lidar sensors and point cloud sequence segmentation.
- Thesis: *Semantic Segmentation of Point Cloud Sequences using Point Transformer v3*

Bachelor of Science in Aerospace Engineering

Georgia Institute of Technology

Graduated: December 2011

- Space Systems Design Focus, Minor in German
- Summer 2010 abroad in Germany for LBAT (Language for Business and Technology) Program held at Bauhaus Universität in Weimar, Thüringen and Ludwig-Maximilian University of Munich.
- 2nd Place in Junior-level space systems design competition
 - Developed conceptual model of a single-stage-to-orbit (SSTO) spacecraft using systems engineering tools like PHX Model Center, MATLAB, and the US Missile DATCOM.
- Team won 3rd Place in 2011 national AIAA Undergraduate Space Systems Design Competition
 - Designed mission trajectory using Monte Carlo methods to accommodate unknown orbital rendezvous target collection existing within limits provided by the RFP.

Associate of Science in Engineering

University of North Georgia

Graduated: December 2007

- Minor in Mathematics
- 2nd Place among UNG students in 2007 Georgia Community College Mathematics Tournament

CERTIFICATES

Fanuc CERT Level 2, IR Vision, Ogeechee Technical College

March 2020

Fanuc CERT Level 1, Material Handling, Ogeechee Technical College

March 2020

Computer Science Foundations, Kennesaw State University

December 2019

VOLUNTEERING

Magnolia Soap Box Derby

S.T.E.A.M. Committee Chairperson

May 2019 – Present

STEM Committee Volunteer

January 2018 – April 2019

- Worked with local middle and high schools and other non-profits to coordinate participation in an annual soap box derby race; grew the size of the event to a record 18 teams in the 2024 race.
- Created “S.T.E.A.M. Learning Zone” for display during the event made of custom educational displays that let young kids learn about physics using hot wheels cars on special ramps and loops.