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Luke Michals

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TECHNICAL SKILLS

JavaScript | React | Redux | D3 | three.js | Node | GraphQL | TDD | Jest | Enzyme
Matlab | Mechanical Design | Creo | CATIA | Manufacturing | Procurement | Project Management

EXPERIENCE

- Procure - Design Systems Team Software Engineer | Carpinteria, CA** Jan 2020 - Present
- Developed reusable UI components for use by internal and external stakeholders
 - Created documentation website using GatsbyJS for organizing reusable components
- Procure - Invoicing/Pay Squad Software Engineer | Carpinteria, CA** Apr 2018 - Dec 2019
- Led squad technical debt refactoring effort to combine React apps into a single page application
 - Coordinated weekly financials frontend chapter meeting to align engineers across R&D
 - Created staging area app between Procure and Quickbooks using React-Redux
 - Architected application to be used by millions of construction professionals as a "Venmo for construction"
- Booz Allen Hamilton - Staff Technologist | El Segundo, CA** Oct 2017 - Apr 2018
- Created interactive 3D Model Viewer with React, Redux and three.js for advertising and product education
 - Collaborated with data scientists to transform trends in political data into visualizations that tell stories
 - Utilized TensorFlow Python API to perform object detection on 360° drone video footage
- Boeing - Satellite Antenna System Design Engineer | El Segundo, CA** Jun 2012 - Apr 2017
- Created SQL database and GUI using MS Access to organize and standardize the notes used on engineering drawings
 - Developed algorithm for aggregation of standardized stress/dynamics analysis for antenna hardware
 - Received World Class Engineer Award (May 2016) for execution of mechanical design activities on various programs
- UTC Aerospace - Aerospace Mechanical Engineering Intern | Rockford, IL** Aug 2010 - Dec 2011
- Installed accelerometers and pressure transducers to rocket hardware and supervised dynamics qualification test
 - Analyzed rocket hardware dynamics test data for space-readiness qualification using proprietary modal analysis software
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PROJECTS

- ACD3 - Software Engineer | Open Source Video Visualization Library** 2017
- Engineered data flow to handle creation of YouTube and Vimeo video players
 - Architected the project website (AC-D3.com), associated demonstration visualizations and deployment to AWS
- HDRA - Mechanical Design Engineer | High Density Routing Assembly** 2016
- Devised sorting algorithm for streamlining the process of creating HDRA device waveguide channels
 - Awarded patent for novel design aspects of HDRA for use in satellite systems
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EDUCATION

- University of Southern California | MS Product Development Engineering** 2012 - 2014
University of Illinois (Urbana-Champaign) | BS Mechanical Engineering (Minor: Physics) 2007 - 2012