CHLOE HANKS

College Station, TX
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LinkedIn: linkedin.com/in/chloehanks/ | GitHub: github.com/chloeeh | Portfolio:
chloeeh.github.io/hanks-react-portfolio/

SUMMARY

Experienced Electronics Engineer with a background in Electrical Design and Test enraptured by the challenge of learning. Unafraid to go after the unconventional in an effective manner. Known for working well across projects both as a leader and a learner; ease of adaptability to new roles/projects; and drive towards clear solutions. Documentation-obsessed, and detail-oriented while still keeping the big picture in mind.

TECHNICAL SKILLS

Hardware Competencies: schematic capture/PCB layout (Altium); hands-on board and systems testing; through-hole/SMD soldering; datasheet component analysis
Software Competencies: LabVIEW, Arduino, JavaScript, NodeJS/Express, HTML, CSS, Tailwind, MySQL, NoSQL, git, jQuery, Mongoose
Interpersonal: Excellent project management aptitude, distinguished documentation and presentation ability, passionate about mentorship

PCB PROJECTS

Chamber Lights | Gist Link: gist.github.com/chloeeh/3fc6f026e52dc8b83757c950a59d2cdb
- Custom responsive, scalable, vacuum-compatible LED light strands minimize costs, volume, and power compared to commercial alternatives
- Electrical Designer (hardware & software), PCB designer, test engineer
- ExpressSCH/PCB, Arduino Uno

Audio Amplifier | Gist Link: [Contact me for details]
- Led a high school student through the design & analysis, manufacturing, test/troubleshooting cycle of an audio amplifier project
- Mentor, Technical Lead, PCB Designer
- ExpressSCH/PCB, soldering, bench test equipment (oscope, power supplies, function generator, DMM)

Motor Control and DAQ | Gist Link: [Contact me for details]
- Designed an Analog Front-end to proportionally control inductive loads (i.e. solenoids) with dual-sensing to create a more accurate control circuit; responsible for both schematic capture and PCB layout
- Analog Hardware Designer; PCB Drafter; Parts Engineer; Power & Accuracy Derivations Analyst
- ExpressSCH/PCB; Mentor Graphics; MathCAD; LTSpice; Microsoft Office (Excel, Word, PowerPoint)

EXPERIENCE

Southwest Research Institute of Technology (SwRI) – San Antonio, TX   Jun 2021 – Nov 2022
Senior Research Engineer | Space Science and Instrumentation
- Troubleshooted Printed Circuit Boards (PCBs) to minimize crosstalk on low-level signals; tune delay lines to fractions of a nanosecond; mitigated anomalies observed in testing
- Troubleshooted and updated High Voltage Power Supply board to create bipolar voltages up to +/-6.5kV
- Wrote and performed test documentation from board- to system-level designs

Jacobs Technology (NASA) – Houston, TX   Apr 2018 – Jun 2021
Lead Electrical Design Engineer | Portable Life Support System (PLSS)
- Technical lead who mentored 5+ electrical engineers to support a team of 50+ multidisciplinary engineers developing test rigs to measure the performance of next generation spacesuit components
- Created electrical system architectures for complex electro-mechanical test rig systems
- Wrote and performed extensive functional checkout procedures to prove system operation
- Designed and tested custom modular hardware solutions and niche applications through PCB design
- Allocated electrical resources to fold into team's schedule and budget analysis

Electronics Design Engineer | Power Management
- Designed low power system to gauge capacity of Li-Ion batteries in an emergency flight system

- Developed system-wide power budget calculator based on flight data and user input to size Li-Ion batteries
- Created detailed documentation to explore nuanced design and component selection decisions

Intel Corporation – Hillsboro, OR   Aug 2017 – Mar 2018
Analog Engineer | Power Delivery
- Designed and managed effective voltage regulation (VR) solutions for FPGA systems
- Recommended effective VR layout and via feedback to validation engineers to ensure workable outcomes
- Found design flaws and mitigated potential failures through investigation and analysis

National Instruments – Austin, Texas   May 2016 – Aug 2016
Analog Hardware Intern | Data Acquisition and Control
- Defined and designed analog front-end power output stage with PWM drive and current sensing/control
- Developed custom schematic and PCB layouts for prototype board development
- Derived power and accuracy considerations to ensure analog front-end remained within specification

EDUCATION
UTSA FullStack Web Developer Boot Camp Certification   Apr 2023
University of Texas - San Antonio (Grade: A)

Bachelor of Science in Electrical Engineering (Mathematics minor)   Apr 2017
- Tau Beta Pi Scholar

Bachelor of Art in Russian   Apr 2017
- ACTFL Advanced-High/Superior Russian

Brigham Young University, Provo, UT (GPA: 3.89)