BRIAN SMITH

Electrical Engineer, *Denver, CO*

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Experience

NEI Electric Power Engineering: *Electrical Engineer II* June 2021 - July 2024

- Designed retrofit and greenfield relay installations for high voltage utility substations
- Produced protection study reports for large scale utility substations and photovoltaics (PV) based on client specifications and company standards
- Utilized standard software such as PVsyst, CYMCAP, and CDEGS on a daily basis
- Designed MV and DC cable layouts with civil constraints for PV systems in AutoCAD
- Provided construction support and commissioning assistance to improve engineering design

Audio Designer: *Independent Contractor* November 2016 - Present

- Created a nationally recognized music business to help redefine WGI Sport of the Arts by maintaining positive relationships with clientele and gaining support through state, national, and international competitive performance ensembles through word of mouth
- Designing, creating, and arranging audio tracks to meet client specifications with creative liberty
- Utilizing Logic Pro X to design, record, and master tracks for internationally competitive performing arts ensembles

Wearable Electronics and Assistive Robotics (WEAR) Lab Research: *University of Central Florida* October 2019 - February 2021

- Helped build research lab under Dr. Park by directing equipment purchases for the electrical fabrication station
- Analyzed datasheets, created BOMs, and integrated a wide array of sensors for project design
- Created a development plan with a research team for a sensor integrated electronic trombone for disturbance free practice, compact portability, and player connectivity to enhance the practice-performance experience
- Demonstrated new ideas by bridging the gap between musicians and engineers through weekly presentations and team meetings

Project Spotlight

Wadley Solar (IFC), *Jefferson County, GA*
260 MW AC Nameplate
- DC routing, site layout, and installation drawings
- Cable Ampacity, AC and DC Loss Calculations, SAM Model, Insulation Coordination, Cable Schedule, Lightning Protection, Basis of Design, and BOM
- Main point of contact for construction support
- Designed for five bin classes from two different module manufacturers

Platinum BESS (90%), *Savoy, TX*
300 MW POI
- Grounding for BESS and Substation yard

Optimist Solar (IFC), *Clay County, MS*
200 MW AC Nameplate
- Grounding, Lightning Protection, Cable Ampacity, Short Circuit, Cable Schedule, and SAM Model

Pierce County (30%), *Pierce County, NE*
420 MW AC Nameplate
- Preliminary Cable Ampacity, SAM Model, Preliminary MV and DC Loss

MIDI Melody Auto-complete, *University Capstone Project*
- Hardware and 3D CAD design Lead
- Stand-alone battery-operated MIDI keyboard designed to complete inputted unfinished melodies

Software

Grounding: CDEGS, WinIGS **Cable Protection:** CYMCAP **Energy Modeling:** SAM, PVsyst **Short Circuit:** ETAP
CAD: AutoCAD, MicroStation **Workflow:** Revu BlueBeam, Foxit, Microsoft Suite

Hardware and Safety

- Navigating **NFPA** and **IEEE Standards**
- **Onsite Safety** Courses and Active Practice
- **Commissioning and Testing** Substation
- **Wiring and Soldering**
- Common Sense Practices and Interdisciplinary Communication

Extracurricular

Music and Audio Engineering, *Logic Pro X*
Composition, Arrangement, Editing, Design, Production
Future Room, drumming for gig performing cover band
Pearl Clutchers, drumming and writing
Dandelion Feathers, writing, producing, managing, and performing original music