

David Barnett

Engineer in Training (on track for PE)

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Charlotte, NC 28213

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Portfolio: davidbarnett.info

OBJECTIVE

I am currently looking for a full time position related to the development of electromechanical systems. During the past several years at UNC Charlotte, I've gained invaluable knowledge and experience to help drive my life long passion for inventing and finding creative, resourceful solutions to problems. I have an insatiable desire for learning new things that improve my abilities, efficiency, and quality of work.

EDUCATION

Total Undergraduate Credits: 249

Total Graduate Credits: 21

UNC Charlotte (01/2018 – 12/2019)

Graduate Certificate in Applied Energy
and Electromechanical Systems
(3.75 GPA)

UNC Charlotte (01/2016 – 05/2019)

B.S. in Mechanical Engineering
Technology
(3.6 GPA)

USF (08/2011 – 07/2014)

B.S. in Health Sciences

Santa Fe College (08/2007 – 05/2010)

A.S. in Engineering

KEY SKILLS

SolidWorks (design + simulation)

ANSYS (simulation)

Autodesk Fusion 360

MATLAB and Simulink

Arduino

LabView

Microsoft Office

Graphic renderings & animations

Electrical circuit design/testing

PLC

GD&T

CAM

C++

Recent Experience

(See portfolio website for other job experience)

Research Assistant • UNC Charlotte • (01/2018 – 12/2019)

- Design, simulation, manufacturing, assembly, and testing of magnetic gearboxes
- Manufacturing with 3D printing, laser/water jet cutting, CNC, and manual machining (lathe/mill)
- Collaboration of research presentations and publications
- Presenting research at various conferences (NCROES, AES, and DUEC)
- Working with an interdisciplinary team to achieve long term project goals
- Creating and refining complex assemblies with 100+ parts
- Constructing fixtures for various electromechanical components
- Data acquisition and analysis

3 years of group capstone projects (sophomore, junior, and senior)

- Design, manufacturing, and testing of mechanical assemblies

Accomplishments

- FE Mechanical - Passing score

Publications

- Electromagnetic Analysis and Experimental Testing of a Flux Focusing Wind Turbine Magnetic Gearbox (2019, IEEE)
- A High Torque Density Halbach Rotor Coaxial Magnetic Gear (2019, IEEE)

Work References

Wesley Williams, PhD, PE, Associate Professor

Aidan Browne, PhD, Assistant Professor

Navid Goudarzi, Assistant Professor

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