Eric D Becnel

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Objective

To develop integrated aerospace systems.

Education

University of Alabama in Huntsville — Graduation: Dec 2013
Master's in Aerospace Engineering / Advanced Heat Transfer — GPA: 3.444
Master's Thesis Topic
- THE DESIGN OF AN APPARATUS FOR THE EXPERIMENTAL TESTING OF NUCLEATE BOILING IN MICROGRAVITY

University of Alabama in Huntsville — Undergraduate Graduation: May 2010
Aerospace Engineering — Graduating GPA: 3.486

Mandeville High School — Mandeville, LA — Graduation: May 2006
Top 10 % of Class — Weighted GPA: 4.00

Work Experience

RadioBro Corporation	*Aerospace Engineer/ Vice President*		Mar-2014 – Present
Moon Express	*Aerospace Development Engineer*		Jan-2014 – Mar 2014
UAHuntsville	*Graduate Research Assistant*		Aug 2010 – Dec 2013
NASA MSFC Intern	Huntsville, Al	Engineering Intern	May 2010 – July 2010
Orion Propulsion	Madison, Al	Engineering Intern	May 2009 – Dec 2009
UAHuntsville	*Student Prototype Design Specialist*		June 2008 – May 2009

Presentations/ Conferences/ Publications

International Astronautical Congress - Toronto, Canada — Sep 2014
TURN-KEY SMALL SPACECRAFT FOR GENERIC SCIENCE MISSION SUPPORT
International Astronautical Congress - Naples, Italy — Sep 2012
SURFACE ROUGHNESS EFFECTS ON MICRO GRAVITY BOILING
Small Satellite Conference — Aug 2012
Huntsville, AL Chamber of Commerce trip to Capitol Hill - Washington DC — Apr 2012
National Space Foundation - Colorado Springs, CO — Apr 2012
International Astronautical Congress - Cape Town, South Africa — Sep 2011
SURFACE TENSION EFFECTS ON MICRO GRAVITY BOILING
CubeSat Conference - San Luis Obispo, CA - Attendee — Apr 2010
AIAA Student Conference - Huntsville, Al — Apr 2009
SMALL AIRCRAFT WING FABRICATION TECHNIQUES

Activities

RadioBro Corporation — **Vice President/Co-Founder**
- MiniSatCom — **Chief Engineer** — 2014 – Present
  (MiniSatCom is a 1 watt UHF small satellite communication radio)
  - Led the MiniSatCom technical product development of electrical, RF, software and mechanical design, manufacturing and testing.
- Cyclone Instrumentation — **Chief Engineer** — 2014 – Present
  (Cyclone is a state of the art instrumentation system)
  - Led the Cyclone technical product development of electrical, software and mechanical design, manufacturing, testing and first customer implementation.

NASA Student Ambassador — 2009 - Life

Eagle Scout — 2003 - Life

Space Hardware Club
- ChargerSat-1 — **Team Leader/Chief Engineer** — 2010 – 2013
  (ChargerSat-1 is a 1U CubeSat)
  - Led ChargerSat-1 team from concept to orbital operations.

- Directly responsible for mechanical, thermal, communications and ground station design. Responsible for all procurement, facilities, development, testing and preparations for launch readiness satisfying all launch requirements.
- Performed microgravity testing with NASA Reduced Gravity Office on G-Force 1

- Club President 2009-2011
  - Built club capabilities, wrote successful funding proposals and ensured success in club projects.
- BalloonSat **Team Member** 2007 – 2013
  - Heavily involved with the design, fabrication and operation of payloads, tracking systems, communication systems and launch operations for over twenty five high altitude weather balloons. These can reach over 120,000ft in altitude.
- CanSat **Mechanical Team Member** 2007 – 2009, 2013
  - Designed, fabricated and tested highly integrated and low mass rocket deployed payloads

ASME Moon Buggy Team **Team Leader** 2007 – 2009

- Reestablished UAH Moon Buggy Team through ASME in Fall 2007.
- Used Solid Edge, Patran/Nastran, ADAMS, SURFCAM, manual/ CNC mill and lathe, injection molding press, plastic, aluminum, carbon fiber, Kevlar, & fiberglass.
- Designed composite leaf spring suspension using a polycarbonate dampening leaf.

Special Skills

Gained experience in part and system design, engineering, prototype fabrication, component and system testing and real time operations. I have experience with team leadership by working with and leading design teams. I have experience with inspection, testing and assembly of space flight hardware with various employers. I have participated in the design and implementation of many instrumentation system for a variety of environments. I have participated as the instrumentation engineer in the complete instrumentation of a manned aircraft, followed by participating as a test flight engineer for several instrumented test flights.

Software Skills

Matlab - CFD models, Real-Time experiments/flight operations code
Atmel/AVR Studio and Arduino - Atmel microcontroller programming
Thermal Desktop - Component, system and orbital thermal analysis software
Solid Edge - 3D part/assembly modeling
MySql Database - flight data database storage
National Instruments - Compact Rio for real time operations
Design Spark PCB - Circuit design and layout
CadSoft Eagle PCB - Circuit design and layout

Awards

Sigma Gamma Tau National Aerospace Engineering Honors Society	Apr 2009
NASA Student Ambassador 2009-present	Mar 2009
ASME North Alabama Outstanding Mech. Eng. Student of the Year 2009	Feb 2009
Omicron Delta Kappa Honor Society Inductee	Sep 2008
ASME North Alabama Engineering Student of the Year 2008	Feb 2008
Delta Epsilon Iota Academic Honor Society	Apr 2007

Scholarships

Dr. Francis & Susan Wessling Scholarship	2009 – 10
Dr. Gerald Karr ASME Scholarship	2009 – 10
Thomas and Minnie Rast Scholarship	2006 – 10

	Academic Excellence Scholarship	2006 – 10

Proposals

Space Hardware Club Funding Proposal - Awarded	2011 – 12
Space Hardware Club CubeSat Funding Proposal - Awarded	2011 – 13
ChargerSat-1 NASA CubeSat Launch Initiative Launch Proposal - Awarded	2011 – 12
ChargerSat-1 NASA Flight Opportunities Proposal - Awarded	2011 – 12
Space Hardware Club Funding Proposal - Awarded	2010 – 11
Space Hardware Club Funding Proposal - Awarded	2009 – 10
Moon Buggy Funding Proposal - Awarded	2008 – 09
Moon Buggy Funding Proposal - Awarded	2007 – 08

References

Available upon request