

BARON JOHNSON, PH.D.

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SUMMARY

Aerospace and flight test engineer with strong practical and academic background and experience in commercial and DoD UAS programs. Flexible and adaptable, with project management, line management, and team leadership experience on a wide range of tasks. Also a commercial-rated pilot, licensed UAS operator, and championship fixed-wing and helicopter RC pilot.

EXPERIENCE

06/2011 – Present

Huntsville, AL

Dynetics

Aerospace Engineer, System Development Section Manager

Performed variety of technical work including aircraft and payload simulation development and testing, experimental UAS payload integration, flight testing, systems engineering, and technical manual development. Served as project manager, technical team lead, and flight test lead on both internally and externally funded programs. Managed section as large as 5 engineers, performing staffing, performance appraisals, and career development. Led and contributed to numerous proposals and white paper submissions. Participated in college recruiting and interviewing.

08/2007 – 05/2011

Gainesville, FL

Flight Control Lab, University of Florida

Graduate Research Assistant

Developed rapid path planning strategies for highly maneuverable vehicles to ensure sensor coverage of multiple targets in a cluttered environment. Researched high angle-of-attack wing rock with experimental flight data.

08/2003 – 08/2007

Gainesville, FL

Micro Air Vehicle Lab, University of Florida

Undergraduate Research Assistant

Developed, flight tested, and analyzed UAS ranging in size from 4 inches to 6 feet, with open-loop and autonomous control. Utilized CNC machined molds, composite prepreg and wet layup construction, wind tunnel and visual image correlation analysis, and Xfoil/AVL aerodynamic prediction software.

10/2002 – 05/2003

Gainesville, FL

Florida Cooperative Fish & Wildlife Research Unit

Undergraduate Research Assistant

Constructed and flight tested a small autonomous UAV for wildlife surveillance using COTS components, including the MicroPilot 1000 autopilot

EDUCATION

08/2007 – 05/2011

Ph.D., Aerospace Engineering

University of Florida

Dissertation: *Trajectory Planning for Effective Close-Proximity Sensing with Agile Vehicles*

08/2007 – 05/2009

M.S., Aerospace Engineering

University of Florida

Thesis: *High Angle-of-Attack Flight Characteristics of a Small UAV with a Variable-Size Vertical Tail*

Minor: Forest Resources and Conservation (Geomatics)

08/2002 – 05/2007

B.S., Aerospace Engineering

University of Florida

Graduated Cum Laude

NOTABLE

SECRET Security Clearance

Active, Awarded August 2011

Developed curriculum and instructed joint AIAA/Dynetics course

Intro to UAV Systems: Components, Construction, & Control

Member of AIAA Atmospheric Flight Mechanics Technical Committee

UAV Functional Subcommittee

AIAA Reviewer

Journal articles, conference abstracts, best paper awards, lifetime achievement awards

Filmed UAS segments for documentaries

PUBLICATIONS

Authored numerous technical journal articles, conference papers, and design reports

Numerous best paper / presentation / report awards

Authored and contributed to proposals, white papers, and abstracts submitted to DARPA, NASA, AFRL, NSF, Army, and Air Force

Led technical manual development and V&V

Authored numerous magazine and web articles

Published children's author

FLIGHT

Commercial Pilots License with Instrument and Multi-Engine Ratings

sUAS Part 107 Remote Pilot Certificate

Sailplane, aerobatic, and formation experience

5-time US national champion in fixed-wing and helicopter RC aerobatics

Performed unmanned flight testing with open-loop, stability-augmented, and closed-loop aircraft, including fixed-wing, helicopter, multirotor, and tiltrotor

Chief pilot for UF MAV Team

4 consecutive 1st-place overall finishes at International MAV Competition

Factory Trained UAS Operator/Instructor

FireFLY6 tiltrotor UAS, xFoldRig multirotor UAVs

TRAINING

- Project Management
- Systems Engineering
- Technical Writing
- DOD 101
- Using Word More Efficiently
- Effective Simulink Programming
- Human Machine Interactions
- Small UAV Innovation

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Aerospace / Flight Test Engineer