Hatem A. Abdalla   hhatim@gmail.com   +1 425-614 6403   Seattle, WA

Summary:

Experienced engineering professional and excellent technical instructor, worked in Operations, Flight Test and Structural Analysis with strong leadership, presentation and team management skills. Led engineering activities to implement best business and Lean practices. Demonstrated the ability to think strategically about business, created technical definitions around customer objectives in complex situations, developed solution strategies, motivated and mobilized resources, as well as delivered results.

Application Developer / Software – SpectraLux   Avionics   06/2018 – Current

Developed and tested Airborne Human machine interface products, flight management systems for critical aircraft systems that impact crew efficiency, performance and control. Successfully performed software verification and validation. Provided requirements for FANS 1/A, ATN CPDLC, AOC ACARS, and Condition-based Global Flight Tracking. Software certification requirements.

Application Developer – Independent freelancer   07/2017 – 5/2018

Designed and developed full stack engineering applications. Apps are located in my GitHub Repository www.github.com/hhatim1

Structural Analyst- Boeing 777X   09/2016 – 07/2017

Supported 777X development and certification, body integration, design, prototyping, and test planning including all aspects of program requirements.

Propulsion Systems Analysis- Boeing 787   05/2012 – 08/2016

Successfully evaluated interface loads for systems/composite airframe joints. Supported 787-8/-9 Airline customers to certify Intermix capable Nacelle across all 787 Models. Published and updated Certification Reports, Service Bulletins, Repair Manuals and Inspection Plans.

ECS/Fuel Systems - Gulf Stream G550/600/650   04/2011 – 05/2012

Responsible for systems stress analysis in support of relevant and approved FAA data for fuel and ECS systems.

Flight Test Evaluation Engineer - Boeing 737/747/777/787   06/2007 – 04/2011

Conducted real time certification flight tests to validate flight loads and analyze the airplane responses to pre-determined high G-Maneuvers at different load configurations and variable speeds and altitudes for FAA/EASA certification.

Published post-flight test data, test summaries and FAA certification reports In order to expand the envelope for 787-8 and to validate the airplane composite structure is flutter free.

Stress Analyst - Boeing   737   03/2005 – 06/2007

Successfully conducted Production Flight tests to investigate and eliminate various production squawks, conformity issues and composite brakes package certification.

Participated in the Certification Process, Flight Test Operations, Flight Ground Operations, Risk Evaluation, and Risk Alleviation Methods, Test Planning and Test Summary Techniques

Principal Investigator - National Science Foundation   02/2004 – 02/2005

Awarded the United States National Science Foundation Design Manufacturing and Industrial Innovation Grant for Proposal Title: Real Time Ultrasonic Control of Bolt Tightening. The Award includes a commitment to develop and introduce new technology and sound commercialization plan.

Additional Experience

Executed developmental packages from Engineering Work Authorization to FAA Certification.
Led the 737NG Project to expand the winglet Supplemental Type Certificate
Conducted Computer Aided Noise Vibration Investigations in Support of Prototype Development.
Verified structural integrity using analytical methods.

Education

Bradley University, Peoria IL
Masters of Science, Mechanical Engineering

Coding Dojo, Bellevue WA
Certificate in Software Development

Skills:

- Tools: Command Line, Linux/UNIX, Airborne Data Systems, ADAMS, Matlab, Python
- Applications: Enovia, Catia, Abaqus, Nastran, AnSys, Nastran, hyper Mesh, Ls-Dyna.
- Topics: Flight Test, Structural Vibrations, Flight Test, Flutter, Data Analysis, Modeling.
- Software Applications development and deployment: Python, JavaScript, Java and AWS

Selected Professional Certification

Boeing Delegated Compliance Organization, Renton WA 2015
(BDCO) AR in training

University of Washington, Seattle WA 2013
Graduate Certificate in Modern Aircraft Design

University of Washington, Seattle WA 2010
Graduate Certificate in Aircraft Composite Manufacturing and Materials

Boeing Lean Academy, Renton WA 2008
Boeing Production System Certificate

Management and professional Certification

Villanova University, Tampa FL
Certificate in Project Management

University of San Francisco, San Francisco CA
Certificate in Supply Chain Management

Honors and Awards

- 787 Test and validation operational recognition
- Programs recognition for identification and implementation of excellent quality measures.
- Awarded the National Science Foundation Design Manufacturing and Industrial Innovation Grant for Proposal Title: Real Time Ultrasonic Control of Bolt Tightening