

**Austin E. Cox**  
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### **Work/Education History**

#### **Simulia Solution Consultant**

##### **North America Technical Sales**

Jan 2019 – Present

High-Tech Industry focused

##### **West coast CoE, A&D CoE**

May 2015 – Jan 2019

Sole on-site Simulia support for Boeing enterprise

- Developed tool (OEBT) to generate subset result database files from existing ones. To be integrated as native Abaqus code in 2020. Tool used by numerous companies over multiple industries.
- 2018 Tech Symposium Certificate of Recognition for “significant contributions to the SIMULIA brand”
- Award for assisting Boeing FEATEC with connectors, rapid turnaround time in critical situation
- Lunch and Learns, site visits, one-on-one mentoring, managing product enhancement requests, ...
- Assist with growth engagements at Boeing – Additive Manufacturing, UFEM, MBS, 3DX blueprinting, etc.
- Abaqus technology improvements:
  - Pre/solver improvements for Shell ties – 40% overall solve speedup – significant impact to overall Boeing HPC usage (multiple %)
  - ODB results data extraction - ~3x speed improvement for core post-processing workflows
  - Multiple non-linear load cases – spearheaded effort to define and implement solver technology necessary to carry out the multiple non-linear load case workflow
  - Additive Manufacturing – ensured success of Boeing work on additive manufacturing in Abaqus before the 3DX platform had AM capability. I had to set up and run numerous meetings between Simulia sales, Boeing and Simulia R&D, and coded a number of scripts to manipulate and manage data at different points in the AM process

#### **Full Stack Web Development Certification – UW**

Completion est. May 2020

- HTML5, CSS3, JavaScript, Git, jQuery, Node.js, Database Theory, MongoDB, Heroku, Java

#### **Master of Science (Aerospace Engineering) – Texas A&M University**

May 2015

- Structural Mechanics, Shape Memory Alloys, Abaqus, Fortran, group work, writing and presentation skills

#### **Researcher - Shape Memory Alloy Research Team – Texas A&M**

May 2011 – May 2015

- Thesis on Micromechanics of Shape Memory Alloys using Abaqus
- Conducted Research at Texas A&M as well as universities in Metz (France) and Bochum (Germany)
- Studied at University of Campinas (São Paulo, Brazil) in summer 2010

#### **Electroactive Materials Characterization Lab (EMCL) – Texas A&M**

May 2009 – Dec 2010

- Developed process for electrospinning cellulose mats from Polyvinylidene Fluoride (PVDF) solutions.
- Conducted Fourier Transform Infrared Spectroscopy (FTIR), Optical Microscopy (OM), Differential Scanning Calorimetry (DSC), and dielectric tests on samples to determine material properties of interest.

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### **Technical Skills**

#### **Coding**

- Extensive experience -- Python, Abaqus APIs, FORTRAN, MATLAB
- Medium experience – C/C++, VBA, JavaScript, Git
- Exposed to – HTML5, CSS3, jQuery, Node.js, databases, XML, batch scripting...

#### **Programs**

- Abaqus, 3DEXPERIENCE, SolidWorks, standard Microsoft Office Toolset, ...

#### **General computer**

- Windows (at a technical level), Linux, HPCs, general familiarity with networking (socketing) and other essential computing functionality. I built and maintain my own my desktop computer at home.
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### **Hobbies and Personal Duties:**

#### **Australian Rules Football** – Seattle Grizzlies (local sports club)

Vice President	2019 – 2020
Club Person of the Year	2018
Football Operations Manager	2018

#### **Texas A&M**

AERO Student Advisory Board ( <u>Chair</u> )	2014-2015
Delta Sigma Phi fraternity ( <u>President</u> ), 2 terms	2009/2010 and Fall 2011
AERO Undergrad Student Advisory Board ( <u>President</u> )	Spring 2008 – 2012
Resident Hall Association ( <u>President</u> )	Fall 2008 – Spring 2009

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