

BANGHUA ZHAO

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SUMMARY

- Excellent in engineering principles, strength of mechanics, solid mechanics and structural analysis
 - Proficient in Finite Element Analysis and stress analysis, using Abaqus and ANSYS
 - Skills in Programming (Python, Swift), experience with iOS app and ANSYS ACT development
 - Self-motivated and good communication skills with ability to work in fast-paced environment
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EDUCATION

Purdue University , West Lafayette, IN	01/17 – Expected 12/20
Ph.D. in Aeronautics and Astronautics Engineering, Structures & Materials	GPA: 3.85/4.0
Purdue University , West Lafayette, IN	01/15 – 12/16
M.S. in Aeronautics and Astronautics Engineering, Structures & Materials	GPA: 4.0/4.0
Beihang University , Beijing, China	09/10 – 06/14
B.E. in School of Astronautics, Spacecraft Design and Engineering	GPA: 3.4/4.0

EXPERIENCE

Product Design FEA Intern, Apple Inc, Cupertino, CA 01/18 – 08/18

- Developed FEA models on module and system levels to compare design configs, predict potential failure, and find root causes of design failure. Familiar with reliability tests.
- Designed experiments to characterize the strength of materials and validate FEA models.
- Conducted experiments to characterize and validate material models. Familiar with material calibration.
- Developed Matlab/Python scripts for design optimization, data analysis, and job automation.
- Cooperated with cross-functional teams. Extensive practice on communication and presentation skills.
- Hands-on experience with Abaqus CAE, Hypermesh, and SimLab. Familiar with static, quasi-static, dynamic, explicit dynamic and modal analysis. Proficient with Abaqus keywords.

Graduate Research Assistant, Purdue University, West Lafayette, IN 09/16 – 12/17

- Developed an iOS app for SwiftComp™ by coding with Swift using Xcode. SwiftComp™ is a code developed by Prof. Yu's group at Purdue University for multiscale constitutive modeling for composites
- Developed an ANSYS Workbench platform-based GUI (Graphical User Interface) for SwiftComp™ by coding with Python and XML using ANSYS ACT
- Conducted multiscale structural analysis for honeycomb sandwich structure using ANSYS and SwiftComp™

MAPDL Testing Engineer Intern, ANSYS Inc, Canonsburg, PA 05/16 – 08/16

- Planned and designed different test models and scenarios for the new feature of ANSYS Mechanical APDL using engineering and mathematical knowledge and judgment
 - Developed APDL test code and scripts for testing the new feature and submitted 50+ test cases into the test set for daily regression testing
 - Worked closely with R&D teams by verifying newly developed features, identifying root cause of defects and communicating effectively within and across teams
 - Learned knowledge about ANSYS ACT, Python, and XML by taking ANSYS training course
 - Gained expertise in FEA, ANSYS Workbench, Nonlinear numerical simulation and meshing technology
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SKILLS

- Professional: Abaqus, ANSYS, Hypermesh, SimLab, NX, Xcode, 3ds Max, SwiftComp, BootStrap, Git
 - Programming: Python, Swift, MATLAB, Mathematica, APDL, HTML, CSS, JavaScript
 - Languages: Native speaker of Chinese, professional working proficiency in English
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