

Aakash Bajpai

Curriculum Vitae

abajpai1@umbc.edu
(410) 615-2013 (mobile)

7434 Prince George Road
Pikesville, MD 21208

EDUCATION

University of Maryland, Baltimore County (UMBC) Graduate: *May 2018*

Major: Mechanical Engineering Minor: Entrepreneurship & Innovation

Overall GPA : 3.957 Major GPA : 3.943

Relevant Coursework: Chemistry I/II, Calculus I/II/III, Differential Equations, Physics I/II, Statics, Mechanics of Materials, Intro to Statistics, Thermodynamics, CAD Design, Dynamics, Machine Design, Fluid Mechanics, Numerical Methods, Material Structures and Properties, Vibrations, Transfer Processes, Circuits, Mechanics of Materials Laboratory.

RESEARCH EXPERIENCE

Sustained Research – Fracture Mechanics *October 2015-Present*

University of Maryland, Baltimore County Mentor: Panos Charalambides, PhD

“Predicting the life expectancy of water pipes via a time dependent MATLAB model”

ETID REU – Mechatronics, Robotics, Automated System Design *May-August 2016*

Texas A&M University Mentor: Xingyong Song, PhD

“Design and Simulation of a Lab-Scale Down-Hole Drilling rig via SOLIDWORKS & MATLAB”

FREEDM Systems Center REU – Power Electronics *May-August 2015*

North Carolina State University Mentor: Srdjan Lukic, PhD

“Development of automated data analysis to expedite the testing process of a community storage unit for smart grid applications via secondary use of traction batteries.”

SKILLS

Proficient: MATLAB, R; Exposure to: Python, C/C++, Latex, HTML; Beaglebone/Ubuntu Linux. Materials testing: hardness, pressure vessel, tensile, compression, torsion, charpy impact. Quadcopter Workshop, Arduino Workshop (level I & II), Machine Shop Workshop, Woodshop 3D CAD Design (SOLIDWORKS), synthetic self-healing silicon skin creation.

HONORS

Phi Kappa Beta	<i>May 2017-Present</i>
NASA Space Scholar (Maryland Space Grant Awardee)	<i>January 2017-Present</i>
Phi Kappa Phi	<i>April 2016-Present</i>
Grand Challenges Scholar	<i>April 2016-Present</i>
MARC U*STAR Scholar	<i>April 2016-Present</i>
Presidents or Dean's List-All Semesters	<i>August 2014-Present</i>
Meyerhoff Scholar	<i>June 2014-Present</i>
ABRCMS Poster Winner in Engineering, Math and Physics	<i>November 2016</i>
URA Scholar	<i>February-September 2016</i>

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CONFERENCES/MEETINGS

Annual Biomedical Research Conference for Minority Students	<i>November 2016</i>
University of Pennsylvania Penn Honors Symposium (Poster)	<i>September 2016</i>
Annual Launch/Texas A&M Summer REU Symposium (Poster)	<i>August 2016</i>
Texas A&M ETID Summer Department Update (Oral)	<i>August 2016</i>
National Society of Black Engineers: Nat'l Convention (Attendee)	<i>March 2016</i>
North Carolina State Undergraduate Symposium (Poster)	<i>July 2015</i>

EXTRACURRICULAR ACTIVITIES

UMBC Cultural Board (PANGEA) – Founder & Board Member	<i>January 2016-Present</i>
Tau Beta Pi: The Engineering Honor Society – Treasurer	<i>April 2016-Present</i>
ASME – President	<i>September 2014-Present</i>
NSBE – Member	<i>September 2014-Present</i>
IEEE – Member	<i>September 2014-Present</i>
UAV Club – Treasurer	<i>January 2015-May 2015</i>
Retriever Robotics – Secretary	<i>September-December 2015</i>

TEACHING EXPERIENCE

Department of Mechanical Engineering: Teaching Fellow	<i>August 2016-Present</i>
Courses: Mechanics of Materials (FA16), Dynamics (SP16)	
UMBC Learning Retriever Center: Level II Tutor	<i>August 2015-May 2016</i>
Courses: Mechanics of Materials, Calc I & II, Physics I, Statics	
Private Tutor: Geometry	<i>August 2015-May 2016</i>

COMMUNITY SERVICE ACTIVITIES

Meyerhoff Scholars Program (Student Advisor/Mentor)	<i>September 2016-Present</i>
Student Judicial Hearing Board (Student Justice)	<i>May 2015-Present</i>
ASME V-LINC (Student Designer)	<i>September 2014-Present</i>
Prince George's Science Fair (Judge)	<i>March 2016</i>
First Lego League: Maryland Finals (Judge)	<i>February 2015/2016</i>

REFERENCES FOR AAKASH BAJPAI

Charles Eggleton, PhD

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Panos Charalambides, PhD

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