

## 2019 Winners



*(l to r) Tran, Jordan, and Anthony*

**Biology: Ecology, Wildlife and Conservation**

**1st Place:** *Anthony Grate*

ASSESSING FERTILITY PATTERNS IN A CAPTIVE BREEDING POPULATION OF ALLIGATOR SNAPPING TURTLES.  
Faculty Advisors: Denise Thompson and Dr. Day Ligon.

**2nd Place:** *Trang Tran, Coauthor: Jordan Heiman.*

TOXICITY OF SILVER NANOPARTICLES IN AN AQUATIC ENVIRONMENT.  
Faculty Advisor: Dr. La Toya Kissoon-Charles.



*(l to r) Cody, Husref, Hanna*

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## **Biology: Cellular, Microbiology and Genetics**

**1<sup>st</sup> Place:** *Husref Rizvanovic, Coauthor: Hanna Williams*

EFFECTS OF ALTERNATIVE CHEMOTHERAPEUTIC AGENTS ON THYROID CANCER

Faculty Advisor: Dr. Kyoungtae Kim

**2<sup>nd</sup> Place:** *Cody Likens, Coauthors: Lauren Cornelison, Sara Woodman, Chloe Keyes*

DIETARY SUPPLEMENTATION WITH GRAPSEED EXTRACT PREVENTS DEVELOPMENT OF TRIGEMINAL SENSITIZATION AND INHIBITS PAIN SIGNALING IN A PRECLINICAL CHRONIC TMD MODEL.

Faculty Advisor: Dr. Paul L. Durham.

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*(l to r) Koby, Chad*

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## **Chemistry**

**1<sup>st</sup> Place:** *Chad Lakin II*

CELL PHONE ASSISTED DETECTION OF METAL IONS IN WATER BY PAPER-BASED ANALYTICAL DEVICES.  
Faculty Advisor: Dr. Keiichi Yoshimatsu

**2<sup>nd</sup> Place:** *Koby Ljunggren*

NMR ANALYSIS OF THE EFFECT OF G-T MISMATCHES IN DIFFERENT SEQUENCE CONTEXTS ON  $^1\text{H}/^{31}\text{P}$  CHEMICAL SHIFTS AND NOE INTENSITIES.  
Faculty Advisor: Dr. Gary A. Meints

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*(l to r) Elliott, Connor, Kyle, Alex*

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## **Computer Science**

**1<sup>st</sup> Place:** Connor Jansen, Coauthors: Kyle Sargent, Alex Wilson, Colton Eddy, Emily Box

AUTOMATED GRAPE LEAF PATHOGEN DETECTION AND QUANTIZATION USING CANNY EDGE DETECTION ALGORITHM AND CONTOUR MAPPING.

Faculty Advisors: Dr. Razib Iqbal and Dr. Laszlo Kovacs.

**2<sup>nd</sup> Place:** Elliott Campbell

PORTABILITY AND PERSONALISATION OF ELECTRONIC HEALTH RECORD.

Faculty Advisor: Dr. Tayo Obafemi-Ajayi

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*(l to r) Chase, Patrick, Ethan, Damien, Dustin, Anna, Jeff*

## **Engineering**

**1<sup>st</sup> Place:** *Damien Burbage, Coauthors: Anna Buckthorpe, Chase Ruggeri.*

GOOD VIBRATIONS, OR HOW I LEARNED TO STOP WORRYING AND LOVE ANALOG.  
Faculty Advisors: Dr. Rohit Dua, Dr. Tayo Obafemi-Ajayi

**2<sup>nd</sup> Place:** *Ethan Hill, Coauthors: Scott Kirsch, Jeffrey Mason, Patrick Toplikar, Dustin Whittaker*

MEGA WIMP-51 PROCESSOR CONSTRUCTION.  
Faculty Advisor: Dr. Rohit Dua



*(l to r) Bailey, Mo*

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## **Geography, Geology, and Planning: Geology**

**1st Place:** *Bailey D. Pfitzner*

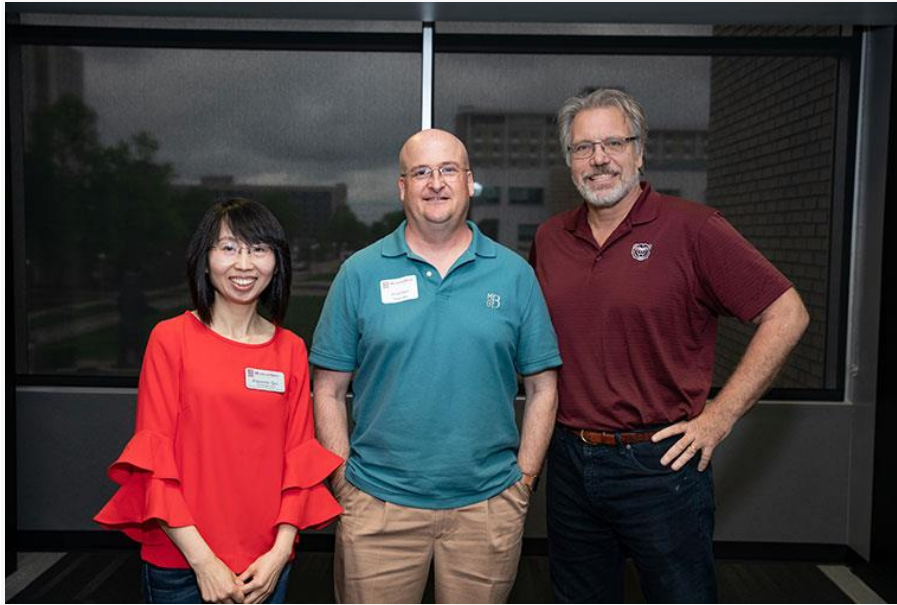
DETERMINING THE EFFECT OF GCP QUANTITY ON DEM ACCURACY IN SUAS-BASED STRUCTURE-FROM-MOTION PHOTOGRAMMETRY.

Faculty advisor: Dr. Toby Dogwiler.

**2nd Place:** *Mo Holley*

BRINGING FOSSILS TO LIFE: THREE-DIMENSIONAL FOSSIL IMAGING.

Faculty Advisors: Damon Bassett and Dr. Toby Dogwiler



(l to r) Dr. Qiu, Michael, Dr. Pavlowsky

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## **Geography, Geology, and Planning: Geography, Geospatial and Planning**

**1st Place:** *Michael Baird*

GEOVISUALIZING JORDAN CREEK THROUGH TIME.

Faculty Advisor: Dr. Judith Meyer

**2nd Place:** *Margaret Alexander*

ARE FISH SANCTUARIES MEETING THEIR INTENDED GOALS IN JAMAICA?

Faculty Advisor: Dr. Robert Pavlowsky

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*(l to r) Kennedy*

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## **Hospitality Leadership**

**1st Place:** *Kennedy Powell, Coauthors: Blake Woods, Darby Graham, Chris Cox, Jin Chang, Huan Ma*

COMPARING REASONS TO VISIT MARDI GRAS IN NEW ORLEANS BETWEEN PEOPLE WHO HAVE ATTENDED AND THOSE WHO HAVE NOT.

Faculty Advisor: Dr. Yoshimasa “Nancy” Kageyama.

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*(l to r) Gabriel, Austin*

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## **Mathematics**

***1st Place: Gabriel Wallace***

COLORING KNOTS WITH QUANDLES.

Faculty Advisor: Dr. Mark Rogers.

***2nd Place: Austin Beard***

COLORABILITY OF SURFACES.

Faculty Advisor: Dr. Mark Rogers.

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(l to r) Austin, Devon

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## Physics, Astronomy and Materials Science

**1st Place:** *Austin Bollinger*

MOLECULAR DYNAMIC SIMULATIONS OF METALLIC SYSTEMS.

Faculty Advisor: Dr. Ridwan Sakidja

**2nd Place:** *Devon T. Romine*

MOLECULAR DYNAMICS SIMULATIONS OF THE ANORTHITE-WATER MELT SYSTEM.

Faculty Advisor: Dr. Robert A. Mayanovic