

# Mark W. Davis

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## EDUCATION

**Master of Science in Computer Science - GPA 4.0** (Predictive Analytics) (May 2019)  
*DePaul University, Chicago, IL*

**Double Major - BS Applied Mathematics, BS Electrical Engineering** May 2017  
*Georgia Southern University, Statesboro, GA*

## COMPUTER SKILLS

Python, R, Tableau, C/C++, Java, Hadoop, MATLAB, JavaScript, Assembly, AWS, Azure, Linux, Oracle SQL, Excel, VBA, CUDA, VHDL

## UNDERGRADUATE RESEARCH

**Leukemia Prediction: Comparison of Machine Learning Prediction Algorithms**

*Poster Presentation – 2017 – Georgia Southern University Research Symposium*

- Accurately predicted cancer diagnosis using supervised machine learning algorithms
- Trained, validated, and compared accuracy of four machine learning models for public cancer data

**Insurance Claim Prediction Using Kaggle Dataset**

*Final Project – 2018 – College of Computing DePaul University*

- Implemented multiple machine learning models for improved classification accuracy
- Prepared data for analysis, implemented testing and validation techniques

**Machine Vision and Navigation using Stereoscopic Imaging**

*Poster Presentation – 2017 – College of Engineering Research Symposium GSU*

- Implemented CUDA GPU hardware with long range HD stereoscopic camera to construct 3D point-cloud models for mobile robotic navigation.
- Integrated autonomous mapping software and hardware using Robotics Operating System in Linux

**Semi-Autonomous IOT Rover for Warehouse Surveillance**

*Electrical Engineering Capstone – 2017 – Georgia Southern University*

- Designed and fabricated an object-avoiding rover and remote-control panel including live video and website control override for industry application using 802.11/UART standards
- Implemented custom PCBs, laser-cut enclosures, and 3D-printed parts

## PROFESSIONAL EXPERIENCE

**Vivint Inc. Home Automation** NYC-Boston-Miami-Austin

*Home Automation Technician* January 2011 – August 2016

- Installed 1000+ custom home automation and IOT surveillance security systems
- Ranked in top 100 (out of 2500+) technicians during 2014 for total accounts installed

**U.S. Department of Defense** Moody Air Force Base, Valdosta, Georgia

*Intern to Energy Manager* January 2009 - July 2010

- Developed facility energy use reports for 200+ Air Force facilities with calculated cost/SF
- Initiated and programmed \$500,000+ of energy reduction projects with Resource Efficiency Manager

**Valdosta State University** Valdosta, Georgia

*Tutor of Mathematics* August 2007 - May 2009

- Completed Internationally Certified (3-week) tutor training program
- Tutored +100 students each semester: Math, Physics, Computer Science

## LEADERSHIP ACTIVITIES:

NASA Sponsored Solar Eclipse High-Altitude Balloon  
FCC Amateur Radio  
Electrical Engineering Capstone, GSU  
Robotics Research Grant, GSU  
Robotics Competition, IEEE  
Institute of Electricians and Electrical Engineers, GSU  
Math Competition Pi Mu Epsilon, VSU  
Mathematical Association of America, VSU

## ROLE:

**2017 – Embedded Systems Design and Launch Team**  
**2017 – Extra Class License**  
**2017 – 1<sup>st</sup> Place Presentation, 2<sup>nd</sup> Place Website**  
**2017 – Awarded \$2000 for Machine Vision Research**  
**2015 – 2017 – Leader Navigation, Computer Vision**  
**2012 – 2017, 2017 – Events Coordinator**  
**2015 – 2nd Place Award**  
**2014 – 2015, 2010 – President**

**COMMUNITY INVOLVEMENT** Kaggle Safe Driver Prediction, DePaul Machine Learning Hackathon, ChiPy, PyData