Dr.Prakash Duraisamy

Assistant Professor,

Department of Computer Science University of South Alabama, Mobile, Alabama, U.S.A



rakashduraisamy@southalabama.edu



April 13, 2020

Research Interests

Computer Vision, Computer Graphics, Robotics, Visualization, Image Processing, Bio - Medical and Remote Sensing.

Education

• University of North Texas	Denton, Texas
Ph.D. Computer Science and Engineering	2009 - 2012
– Advisor: Bill Buckles and Kamesh Namuduri	
– Thesis: 3D Reconstruction using LiDAR and 2D Images	
$-$ GPA: 3.88 \ 4.0	
University of South Alabama	Mobile,Alabama
M.S. Electrical Engineering	2006 - 2008
– Advisor: Aed El Saba	
– Thesis: Visual Contrast Enhancement of Optical Coherence Tom	ography Images using
Combined and Digital Image Fusion Methods	
$-$ GPA: 3.66 \ 4.0	
• Bharathiar University	Coimbatore, India
B.E. Electronics and Communication Engineering	1999 - 2002
$-$ GPA: 3.9 \ 4.0	
Teaching Experience	

- University of South Alabama Computer Graphics, Computer Vision, Software Engg
- Cleveland State University Java Prog, Software Engg
- University of Central Missouri Data Mining, Algorithms

Mobile, Alabama, U.S.A Fall 2018 - Spring 2020 Cleveland, Ohio, U.S.A Fall 2017 - Spring 2018 Lees Summit, Missouri, U.S.A Fall 2016 - Spring 2017

- Miami University Database Systems, Fundamentals of Prog, Data Structures
- Rochester Institute of Technology Computer Vision, Computer Graphics, C++
- Old Dominion University Computer Information Literacy - ECE 111
- University of South Alabama Electronics Systems Laboratory
- Bannari Amman Insitute of Technology Information Theory, Communication Systems
- Bannari Amman Insitute of Technology Television Engineering, Communication Systems
- Bannari Amman Insitute of Technology Network Analysis and Systems, Television Engineering
- Maharaja Engineering College,India Display Systems, Digital Signal Processing

Oxford, Ohio, U.S.A Fall 2015 - Spring 2016 Rochester, New York,U.S.A Fall 2014 - Spring 2015 Norfolk, Virginia,U.S.A Fall 2013 - Spring 2014 Mobile, Alabama,U.S.A Fall 2007 - Spring 2008

- Coimbatore, Tamil Nadu, India Fall 2005 – Spring 2006
- Coimbatore, Tamil Nadu, India Fall 2004 – Spring 2005

Coimbatore, Tamil Nadu, India Fall 2003 – Spring 2004

Coimbatore, Tamil Nadu, India Fall 2002 – Spring 2003

Publications

Journal Articles

- Prakash Duraisamy, Belkhouche Yassine, Kamesh Namaduri, Steve Jackson, Bill Buckles, "Automated 2D-3D registration using Intensity Gradients for 3D reconstruction", SPIE, Special Issue, Advancement in Remote Sensing Applications for Locust Habitat Monitoring and Management (JARS), Volume 6, April 23, 2012.
- Yiwen Wan, Prakash Duraisamy, Bill Buckles, Mohammed S Alam, "Wireless Capsule Endoscopy Segmentation using Global- Constrained Hidden Markov Model and Image Registration", International Journal of Computer Vision and Signal Processing, Volume 2, No-1, September, 2012.
- 3. **Prakash Duraisamy**, Belkhouche Yassine, KameshNamaduri, Steve Jackson, Bill Buckles, "Choosing Appropriate Homography Transformation for Building Panoramic Images", International Journal of Computer Vision and Signal Processing, Volume 2, No-1, September, 2012.
- 4. **Prakash Duraisamy**, KameshNamuduri, Stephen Jackson, Bill Buckles,"Robust Automated Registration of Visual Imagery with 3D LiDAR models", SPIE - Electronic Imaging (EI), Volume 22, Issue -3, September 26, 2013.
- 5. Sumithra Palanisamy, **Prakash Duraisamy**, Xiaohui Yuan, "Adaptive Wavelet Shrinkage for Noise Robust Speaker Recognition", Digital Signal Processing, Elsevier, June 2014.
- 6. Belkhouche Yassine, **Prakash Duraisamy**, Bill Buckles, "Graph Connected Components for Filtering Urban LiDAR Data", SPIE Journal of Applied Remote Sensing, March 10, 2015

Under Review

- 7. **Prakash Duraisamy**, Amr Yousef, Khan M. Iftekharuddin, Steve Jackson, "Novel Shoreline Extraction from Fusion of Aerial and LiDAR Images", Optical Society of America.
- 8. Amr Yousef, **Prakash Duraisamy**, Khan M. Iftekharuddin, "Novel Metric to Evaluate Synthetic and Real Images", Optical Society of America.
- 9. **Prakash Duraisamy**, Sundararajan Tharai Vinay Paramasivam, Stephen Craig Jackson, Mohammad S Alam, Bill Buckle, "Co-registration Under Mixed Illumination Conditions", SPIE- Electronic Imaging.
- 10. **Prakash Duraisamy**, Belkhouche Yassine, Steve Jackson, Kamesh Namaduri, Bill Buckles, "Identifying Regions of Change in Unregistered Color Imagery", SPIE - Journal of Applied Remote Sensing.

Conference Proceedings

- Dongyu Ang, Yao Shen, Prakash Duraisamy, "Video Analytics for Multi camera Traffic Surveillance", ACM, 2nd International Workshop on Computational Transportation Science, Seattle, Washington, USA, 2009, pp-(25-30), ISBN: 978-1-60558-861-2.
- 2. Aed El Saba, **P. Duraisamy**, "Visual Contrast Enhancement and Measurement Techniques applied to Optical Coherence Tomography", SPIE Defense, Security and Sensing, Florida, USA, March 2010, Proc of SPIE Vol.7701.
- 3. **Prakash Duraisamy**, Aed El Saba, Girithara Balathasan, Xiaohui Yuan, "Visual Contrast Enhancement of Optical Coherence Tomography Images Via Image Fusion", IEEE, 2nd International Conference on Communication, Computing and Networking Technologies (ICCCNT), Karur, India, July, 2010, pp-(1) ISBN: 978-1-4244-6591-0.
- Prakash Duraisamy, Kamesh Namaduri, Steve Jackson, "Evaluation of Error metrics for Image Registration of Multiple Images", IEEE, 2nd International Conference on Communication, Computing and Networking Technologies (ICCCNT), Karur, India, July, 2010, pp-(1-8), ISBN: 978-1-4244-6591-0.
- Prakash Duraisamy, Yao Shen, Xiaohui Yuan, "Image Registration Error Analysis using Pattern Recognition Algorithms", SPIE, Optical Engineering and Applications, San Diego, USA, Aug 2010, Proc of SPIE Vol.7799
- Prakash Duraisamy, Yao Shen, Kamesh Namaduri, Steve Jackson, "Error Analysis and Performance Estimation using two different Mathematical Algorithms for Image Registration Applications", SPIE, Optical Engineering and Applications, San Diego, USA, Aug 2010, Proc of SPIE Vol.7799.
- Prakash Duraisamy, Belkhouche Yassine, Steve Jackson, Kamesh Namaduri, Ye Yu, "Fast Automated 2-D Estimation and Error Reduction by Model Selection", IEEE, 14th IEEE International Conference on Computational Science and Engineering, Dalian, China, August 2011, CSE, pp.89-92, ISBN: 978-0-7695-4477-9.
- 8. **Prakash Duraisamy**, Belkhouche Yassine, Steve Jackson, Kamesh Namaduri, Bill Buckles, "Estimation of Camera Matrix using LiDAR Images", SPIE, Optical Engineering and Applications, San Diego, USA, August 2011, Proc of SPIE Vol. 8135.

- Prakash Duraisamy, Belkhouche Yassine, Steve Jackson, Kamesh Namaduri, Bill Buckles, "2D-3D Registration using Intensity Gradients", SPIE, Optical Engineering and Applications, San Diego, USA, August 2011. Proc of SPIE Vol. 8137.
- Prakash Duraisamy, Ye Yu, Steve Jackson, Kamesh Namaduri, Bill Buckles,"Map Updation using Image Registration for Different Sensors by Camera Calibration", IEEE, The 2011 International Conference on Wireless Communication and Signal Processing (WCSP), Nanjing, China, November 2011, ISBN: 978-1-4577-1008 -7/11.
- Prakash Duraisamy, Ye Yu, Kamesh Namaduri, Steve Jackson, Bill Buckles, "A Comparison of Image of Image Registration Techniques for Joining Sequential Images", IEEE, The 2011 International Conference on Wireless Communication and Signal Processing (WCSP), Nanjing, China, November 2011, ISBN: 978-1-4577-1008 -7/11.
- Yiwen Wan, Prakash Duraisamy, Mohammad S Alam, Bill Buckles "Global Constrained Hidden Markov Model applied on Wireless Capsule Endoscopy Video Segmentation", SPIE Defense, Security and Sensing, Baltimore, Maryland, USA, April 2012, Proc of SPIE Vol. 8384.
- 13. **Prakash Duraisamy**, "Color-based Features for Registering Image Time Series", Belkhouche Yassine, Steve Jackson, Kamesh Namaduri, Bill Buckles, SPIE Defense, Security and Sensing, Baltimore, Maryland, USA, April 2012, Proc of SPIE Vol. 8394.
- 14. Sumithra Palanisamy, Prakash Duraisamy, Mohammed S Alam, Xiaohui Yuan, "A New Time Adaptive Discrete Bionic Wavelet Transform for Enhancing Speech from Adverse Noise Environment", SPIE Defense, Security and Sensing, Baltimore, Maryland, USA, April 2012, Proc of SPIE Vol. 8398.
- Belkhouche Yassine, Bill Buckles, Prakash Duraisamy, Kamesh Namuduri, "Registration of 3-D LiDAR Data with Visual Imagery using Shape Matching", The 16th International Conference on Image Processing, Computer Vision, & Pattern Recognition" Las Vegas, USA, July 2012.
- 16. Mohamed Abouelenien, Xiaohui Yuan, Prakash Duraisamy, Xiaojing Yuan, "Improving Classification Performance for the Minority Class in Highly Imbalanced Dataset using Boosting", IEEE, 3rd International Conference on Computing Communication and Networking Technologies (ICCCNT) ", Coimbatore, India, July 2012.
- P. Duraisamy, B.Yassine, Ye Yu, S. Jackson, K. Namuduri, B.Buckles, "Low- Complexity Registration of Visual Imagery with 3D-Lidar" IEEE, 3rd International Conference on Computing Communication and Networking Technologies (ICCCNT), Coimbatore, India, July 2012.
- Prakash Duraisamy, Steve Jackson, Kamesh Namaduri, Bill Buckles, Mohammed S Alam, "Robust 3 D Reconstruction using LiDAR and N-Views of Visual Image", SPIE Defense, Security and Sensing, Baltimore, Maryland, USA, April 2013, Proc of SPIE Vol. 8748.
- Prakash Duraisamy, Steve Jackson, Bill Buckles, Mohammed S Alam, "Image Registration under Poor Illumination using Calibrated Cameras", SPIE Defense, Security and Sensing, Baltimore, Maryland, USA, April 2013, Proc of SPIE Vol. 8748.
- Prakash Duraisamy, Steve Jackson, "Orthogonal Detection and Registration for Microstructures Images", IEEE, 1st International Conference on Communication and Computer Vision (ICCCV) ", Coimbatore, India, December 2013.

- Prakash Duraisamy, Amr Yousef, Khan M. Iftekharuddin," Novel Metrics to Contrast Synthetic and Real Objects in Overhead Hyperspectral Images", SPIE Defense, Security and Sensing Baltimore, Maryland, USA, May 2014, Proc of SPIE Vol. 9088-37.
- 22. Yassine Belkhouche, Bill Buckles, **Prakash Duraisamy**, Mohammed S Alam, "Graph based Filtering of Urban LiDAR Data", SPIE Defense, Security and Sensing, Baltimore, Maryland USA, May 2014, Proc of SPIE Vol. 9094-18.
- 23. **Prakash Duraisamy**, Amr Yousef, Khan M. Iftekharuddin, Steve Jackson," Shoreline Extraction from 2-D and 3-D LiDAR Images", Imaging and Applied Optics Congress, Seattle, Washington, USA, July 2014, Proc of Optical Society of America.
- Amr Yousef, Prakash Duraisamy, Mohammad Karim, "An Improved Algorithm for Pedestrian Detection", SPIE Defense, Security and Sensing, Baltimore, Maryland, USA, April 2015, Proc of SPIE. Vol. 9477-11
- Prakash Duraisamy, Amr Yousef, Bill Buckles, Steve Jackson," Image Registration under Symmetric Conditions - Novel Approach", SPIE Defense, Security and Sensing, Baltimore, Maryland, USA, April 2015, Proc of SPIE. Vol. 9477-19
- 26. Amr Yousef, **Prakash Duraisamy** " A new clustering algorithm for scanning electron microscope images ", SPIE Defense, Security and Sensing, Baltimore, Maryland, USA, April 2016, Proc of SPIE.
- 27. Sachin Meena, **Prakash Duraisamy**, Kannapan Palaniappan, Guna Seetharam " Point based interactive image segmentation using multiquadrics splines ", SPIE Defense, Security and Sensing, Anaheim, California, USA, April 2017, Proc of SPIE.
- 28. Javaria Ahmad, **Prakash Duraisamy**, Amr Yousef, Bill Buckles "Movie success prediction using data mining ", 8th ICCCNT IEEE Conference, IIT Delhi, Delhi, India, July 2017, Proc of IEEE.
- 29. **Prakash Duraisamy**, James Van Haneghan, William Blackwell, G.Murugesan, "Classroom engagement evaluation using computer vision techniques", SPIE Defense, Security and Sensing, Baltimore, Maryland, USA, April 2019, Proc of SPIE.
- 30. **Prakash Duraisamy**, Ramya Gadaley, James Van Haneghan, Steve Jackson "Smaller Class Room Engagement using Appropriate Seating Arrangements", 10th ICCCNT IEEE Conference, IIT Kanpur, Uttar Pradesh, India, July 2019, Proc of IEEE.
- Chuyng Wang, Samuel Mondier, Prakash Duraisamy, "Art is Key to the Success of a Modern Game", 10th ICCCNT IEEE Conference, IIT Kanpur, Uttar Pradesh, India, July 2019, Proc of IEEE.
- 32. Javaria Ahmad, Zachary Lewis, **Prakash Duraisamy**, Todd Mcdonald "Parking Lot Monitoring using MRCNN ", 10th ICCCNT IEEE Conference, IIT Kanpur, Uttar Pradesh, India, July 2019, Proc of IEEE.
- 33. **Prakash Duraisamy**, Ramya Gadaley, Steve Jackson" Human ear recognition using image registration ", SPIE Defense + Commercial Sensing, Anaheim, California, USA, April 2020, Proc of SPIE.
- 34. **Prakash Duraisamy**, James Van Haneghan, Ramya Gadaley, Steve Jackson" Classroom engagement evaluation using computer vision techniques by 360° view of the camera ", SPIE Defense + Commercial Sensing, Anaheim, California, USA, April 2020, Proc of SPIE.

- 35. Jude Thomas, **Prakash Duraisamy**" Online classroom engagement using using computer vision techniques ", SPIE Defense + Commercial Sensing, Anaheim, California, USA, April 2020, Proc of SPIE.
- 36. **Prakash Duraisamy**, James Van Haneghan, Ramya Gadaley, Steve Jackson" Classroom engagement evaluation using computer vision techniques by 180° view of the camera ", 2nd International Conference on Urban Intelligence and Applications 2020, Taiyuan, China, May 2020, Proc of Springer.
- 37. **Prakash Duraisamy**, James Van Haneghan, Ramya Gadaley, Steve Jackson "Classroom engagement evaluation using computer vision techniques by 360° view of the camera", 11th ICCCNT IEEE Conference, IIT Kharagpur, West Bengal, India, July 2020, Proc of IEEE.
- 38. Javaria Ahmad, **Prakash Duraisamy**, Ramya Gadaley "Classroom engagement of underrepresented groups in STEM discipline", 11th ICCCNT IEEE Conference, IIT Kharagpur, West Bengal, India, July 2020, Proc of IEEE.
- 39. **Prakash Duraisamy** "Ethics Awareness among STEM Disciplines Statistical Approach ", 11th ICCCNT IEEE Conference, IIT Kharagpur, West Bengal, India, July 2020, Proc of IEEE.
- 40. **Prakash Duraisamy**, James Van Haneghan, Ramya Gadaley, Steve Jackson" Classroom engagement evaluation using Deep Learning by Facial Gestures ", 7th IEEE International Conference on Learning with MOOCS 2020, Antigua, Guatemala, October 2020, Proc of IEEE.

Poster Presentations

- 1. **Prakash Duraisamy**, Mohamed S Alam, Steve Jackson, "Error Correction in Image Registration using POCS", SPIE Defense, Security and Sensing, Florida, USA, April 2011, Proc of SPIE Vol.8055.
- Prakash Duraisamy, Belkhouche Yassine, Steve Jackson, Kamesh Namaduri, Bill Buckles," Detection of Image Transformation for Reduced Error in 2-D Reconstruction", IEEE, International Conference on Informatics, Electronics and Vision (ICIEV), Dhaka, Bangladesh, May 2012.
- 3. **Prakash Duraisamy**, Xiaohui Yuan, Aed El Saba, Sumithra Palanisamy, "Contrast Enhancement and Assessment of OCT Images", IEEE, International Conference on Informatics, Electronics and Vision (ICIEV), Dhaka, Bangladesh, May 2012.
- 4. Belkhouche Yassine, **Prakash Duraisamy**, Bill Buckles," Ground Extraction from Terrestrial LiDAR Scans using 2D-3D Neighborhood Graphs", Springer, International Symposium on Visual Computing, Las Vegas, Nevada, USA, December 2015.

Grants

1. Center for Teaching and Learning's Institutional Improvement Grant - University of Central Missouri - Fall 2016 - \$ 1,500

- 2. Center for Teaching and Learning's Travel Grant University of Central Missouri Fall 2016 - \$ 2,000
- 3. Center for Teaching and Learning's Speaker Series Grant University of Central Missouri Fall 2016 \$ 1,000
- 4. Instructional Research and Development Grant University of Central Missouri Fall 2016 \$ 3,000
- 5. Start Up Grant University of South Alabama Fall 2018 \$ 20,000
- 6. Wells Fargo Facilitating Access Computer Vision and Robotics to Underrepresented Groups - Fall 2019 - \$ 10,000

Student's Projects

- 1. Capstome Project CSE 448 Fall 2015 Spring 2016 Quadcopter Project
- 2. Guiding Misty Robotics using Computer Vision January 2019 December 2020 K12 Students Project for underrepresented groups

Professional Experiences

- Assistant Professor (August 2018- Present) University of South Alabama, Mobile, Alabama -36688
- Visiting Assistant Lecturer, (August 2017 July 2018) Cleveland State University, Cleveland, Ohio - 44115
- Assistant Professor, (August 2016 May 2017) University of Central Missouri, Lees Summit, Missouri - 64086
- 4. Visiting Assistant Professor, (August 2015 May 2016) Miami University, Oxford, Ohio 45056
- Lecturer, (August 2014 May 2015) Rochester Institute of Technology, Rochester, New York - 14623
- Research Affiliate, (January 2014 January 2015), Massachusetts Institute of Technology, Cambridge - 02139
- Adjunct Assistant Professor, (August 2013 May 2014) Old Dominion University, Norfolk, Virginia - 23529
- Post Doctoral Research Fellow, (May 2013 July 2014) Old Dominion University Research Foundation, Norfolk, Virginia - 23529
- 9. Visiting Scientist, (January 2013 January 2014), Massachusetts Institute of Technology, Cambridge - 02139

- Graduate Research Assistant, (January 2009 September 2012), University of North Texas, Denton, Texas - 76203.
- 11. Gratuate Student Assistant, (August 2008 December 2008), Wichita State University, Wichita, Kansas 67208.
- Graduate Teaching Assistant, (May 2007 April 2008), University of South Alabama, Mobile, Alabama - 36688.
- 13. Lecturer, (July 2003 August 2006), Bannari Amman Institute of Technology, Erode District, Tamil Nadu, India.
- 14. Lecturer,(June 2002 July 2003), Maharaja Engineering College, Erode District, Tamil Nadu, India.

Professional Activities

Conference Organized

- 1st International Conference on Computer, Communications and Networking (ICCCN), IEEE, Karur, India - Dec 18,19,20 (2008). - Organizing Secretary International (Conference Number - 15177)
- 2nd International Conference on Computer, Communications and Networking Technologies (ICCCNT), IEEE, Karur, India - July 29,30,31 (2010). - Organizing Secretary International (Conference Number - 16764).
- 3rd International Conference on Computer, Communications and Networking Technologies (ICCCNT), IEEE, Coimbatore, India - July 26,27,28 (2012).
 - Organizing Secretary International (Conference Number - 20180)
- 1st International Conference onOptical Imaging, Sensor and Security (ICOSS), IEEE, Coimbatore, India - July 2, 3 (2013).
 Conference Co-chair. (Conference Number - 31921)
- 1st International Conference on Current Trends in Engineering and Technology (ICCTET), IEEE, Coimbatore, India - July 3 (2013).
 Conference Cochair. (Conference Number -32107)
- 4th International Conference on Computer, Communications and Networking Technologies(ICCCNT), IEEE, Tiruchengode, India - July 4,5,6 (2013).
 Conference Cochair. (Conference Number - 31661)
- 1st International Conference on Computer Vision and Communication (ICCCV), IEEE, Coimbatore, India - December (2013).- Conference Co-chair. (Conference Number -32205)
- 2nd International Conference on Current Trends in Engineering and Technology (ICCTET), IEEE, Coimbatore, India - July 8 (2014).
 Conference Cochair. (Conference Number -33344)
- 5th International Conference on Computer, Communications and Networking Technologies (ICCCNT), IEEE, Hefei, China - July 11,12,13 (2014).
 Conference Co-chair. (Conference Number -33304)

- 6th International Conference on Computer, Communications and Networking Technologies(ICCCNT), IEEE, Dallas-Fort Worth, U.S.A - July 13,14,15 (2015). - Conference Co-chair. (Conference Number -35239)
- 7th International Conference on Computer, Communications and Networking Technologies(ICCCNT), IEEE, Dallas-Fort Worth, U.S.A - July 11,12,13 (2016). - Conference Co-chair. (Conference Number -37338)
- 8th International Conference on Computer, Communications and Networking Technologies(ICCCNT), IEEE, IIT Delhi, Delhi, India- July 3,4,5 (2017).
 Conference Co-chair. (Conference Number -40222)
- 9th International Conference on Computer, Communications and Networking Technologies (ICCCNT), IEEE, IISc Bangalore, Karnataka, India - July 10,11,12 (2018).
 - Conference Chair. (Conference Number - 43488)
- 10th International Conference on Computer, Communications and Networking Technologies(ICCCNT), IEEE, IIT Kanpur, Uttar Pradesh, India - July 6,7,8 (2019). - Conference Chair. (Conference Number -45670)
- 11th International Conference on Computer, Communications and Networking Technologies(ICCCNT), IEEE, IIT Kharagpur, West Bengal, India - July 1,2,3 (2020). - Conference Co-chair. (Conference Number -49239)

Guest Editor - Journal

1. Special Issue - Amercian Journal of Science and Engineering - Vol. 2, No. 1, 2013.

Reviewer - Journal

- 1. SPIE Journal of Applied Remote Sensing July 2013.
- 2. Journal of Healthcare Engineering Aug 2013.
- 3. SPIE Journal of Applied Remote Sensing April 2014.
- 4. SPIE Journal of Optical Engineering July 2014
- 5. IJWMIP International Journal of Wavelets, Multiresolution and Information Processing October 2014
- 6. SPIE Journal of Applied Remote Sensing October 2014.
- 7. IEEE Transaction of Image Processing December 2018
- 8. Image and Vision Computing Jan 2019
- 9. ISPRS Journal of Photogrammetry and Remote Sensing March 2019
- 10. IJCIS August 2019

11. Acta Polytechnica - October 2019

Professional Member

SPIE # 3262608

- 1. Student Member 2009 2013
- 2. Early Career Professional 2013 2015
- 3. Regular Member 2015 till date

IEEE # 90565180

- 1. Student Member 2011 2012
- 2. Regular Member 2012 Feb 2020
- 3. Senior Member March 2020 till date

IEEE Society Memberships

- IEEE Computer Society Membership 2012 Present
- IEEE Young Professionals 2014 Present
- IEEE Computational Intelligence Society Membership 2018-Present
- IEEE Systems Council Membership 2018 Present
- IEEE Education Society Membership Jan 2020 Present
- IEEE Robotics and Automation Society Membership Jan 2020 Present

ACM # 2369146

1. Regular Member - 2016 - Present

Technical Skills

Programming Languages

• C, C++

Specialized Software

• MATLAB