

VAMSIKRISHNA GOPIKRISHNA

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EDUCATION

University of Texas at Arlington, Arlington, TX

Doctor of Philosophy, Computer Science

Aug 2016

Major: Artificial Intelligence (Computer Vision, Neural Networks, Pattern Recognition and Machine Learning), GPA: **3.5**

Course work: Machine Learning; Neural Networks; Software Engineering Management & Quality Assurance; Computer Architecture; Computer Vision in Robotics; Computer Vision; Computer Graphics; Data Analysis and Modeling Techniques; Multi-agent Systems.

Dissertation: *Building 3D Shape primitive based object models from range images*. Mentored by Dr. Manfred Huber. Implemented methods proposed in MatLab.

University of Texas at Arlington, Arlington, TX

Master of Science, Computer Engineering

Dec 2008

Major: Artificial Intelligence, GPA: **3.4**

Course work: Artificial Intelligence; Robotics; Reasoning with Uncertainty for Data Interpretation, Modeling, and Decision-Making; Databases; Analysis of Algorithms; Networks; Operating Systems.

Thesis: *Temporal Potential Function approach for Path planning in Dynamic Environments*. Mentored by Dr. Manfred Huber. Implemented the method proposed in thesis using MatLab.

Sri Venkateshwara College of Engineering, Anna University, Chennai, India

Bachelor of Engineering, Computer Science & Engineering

Jun 2006

Graduated First Class

Final year project: *Automation of Identification of Protein-Coding region in Human DNA* in Java

TEACHING EXPERIENCE

University of Texas at Arlington, Arlington, TX

Senior Lecturer

Sep 2017 –

Instructor for **Artificial Intelligence, Data Analysis and Modeling Techniques, Discrete Structures** for Undergraduate and Graduate Students

Adjunct Faculty

Jan 2017 – May 2017

Instructor for **Artificial Intelligence** for Undergraduate and Graduate Students

Instructor

Aug 2015 – Dec 2015

Instructor for **Artificial Intelligence** for Undergraduate and Graduate Students

Instructor

Aug 2012 – Dec 2012

Instructor for **Artificial Intelligence** for Undergraduate and Graduate Students

Instructor

Jun 2011

As part of Transitions Summer Bridge Program (<http://www.uta.edu/transitions/>) taught **STEMS Introduction to Engineering** to High School students

Instructor

Jun 2010

As part of Upward Bound Math & Science Center (<http://www.uta.edu/ubmathsci/>) taught **Precalculus & Engineering Research**, for High School students.

Teaching Assistant

Feb 2010 – May 2016

Teaching assistant for **Autonomous Robots; Artificial Intelligence; Computer Graphics; Reinforcement Learning; Reasoning with Uncertainty for Data Interpretation, Modeling, and Decision Making; Discrete Structures; Software Project Management; Software Evolution and Reengineering; Unmanned Vehicle Systems**
Tutor at a Help desk that helped students of **Introduction to Computers & Programming** and Introductory Programming for Engineers & Scientists with their assignments.

PUBLICATIONS AND PAPERS

- Inverse Reinforcement Learning for Decentralized Non-Cooperative Multiagent Systems –*
Tummalapalli Sudhamsh Reddy, Vamsikrishna Gopikrishna, Gergely Zaruba, Manfred Huber
IEEE International Conference on Systems, Man and Cybernetics (SMC), Seoul, Korea Oct 2012
- A Temporal Potential Function Approach for Path Planning in Dynamic Environments –*
Vamsikrishna Gopikrishna, Manfred Huber
IEEE International Conference on Systems, Man, and Cybernetics (SMC), San Antonio, Texas Oct 2009
- TC-ID3: A TESTCODE based ID3 Classifier for Protein Coding Region Identification*
International Conference on Computational Intelligence for Modeling, Control and Automation
(CIMCA), Sydney, Australia Nov 2006

PROJECTS

- Developed a Neural Network based 3D Object model builder in MatLab. 2016
- Developed a Neural Network and Function Minimization based 3D Feature learner in MatLab. 2015
- Developed a Neural Network based face and expression classifier in MatLab 2012
- Implemented an Inverse Reinforcement Learning system for Multi agent systems in MatLab using its optimization Toolbox. 2012
- Developed a simple text-based Android Game 2011
- Developed a Robot path planning simulator in MatLab 2009
- Conducted research on A* Algorithm under the guidance of Dr. Deepak Khemani of Indian Institute of Technology, Chennai. Implemented the algorithm using LISP 2006
- Developed a text based DNA protein coding region identifier in Java 2006
- Developed a Banking - Customer Care System for Microsoft Student Project Program using Microsoft .NET Technologies (ASP .NET & C# .NET) 2005
- Developed a LAN chat system for use in office environment using Socket Programming in Visual C++ for Pentasoft Technologies, Chennai during In-Plant Training. 2004

SKILLS

Areas of Interest:

Pattern Recognition, Machine Learning, Neural Networks, Cognitive Vision, Artificial Intelligence, Perceptive Learning, Robotics, Data Mining.

Software Skills:

TensorFlow, MatLab (Neural Networks, Function optimization, Image Processing), Simulink, Python, R, Java, C, Visual Basic .NET, ASP .NET, LISP, MySQL, Panda3D, OpenGL

MEMBERSHIPS

- ACM
- IEEE
- AAAI (UTA)
- Association of Computer Engineers (India)