SAI LEKYANG

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Interests: AI, Robotics, Heuristic Search, Real-time Planning, Multi-Agent Pathfinding
Language: C/C++, Java, Python, JavaScript, R, PHP, SQL, HTML/CSS
Citizenship: USA, Thai

EDUCATION

University of New Hampshire
MS in Computer Science   9/2019 (expected)
  ▪ 3.76 GPA
  ▪ Relevant CS courses (out of 18): - Introduction to Artificial Intelligence *(Prof. Wheeler Ruml)*
                                                       - Introduction to Machine Learning *(Prof. Marek Petrik)*
                                                       - Topics in Reinforcement Learning *(Prof. Marek Petrik)*
                                                       - Introduction to Mobile Robotics *(Prof. Momotaz Begum)*

BS in Civil Engineering   12/2011
  ▪ Engineer-in-Training Certification *(Issued by The New Hampshire State Board of Professional Engineers)*
      - Passed the optional Fundamentals of Engineering exam; a prerequisite for the Professional Engineer license
  ▪ Award of Excellence - UNH Undergraduate Research Conference
      - Designed the University of New Hampshire and the town of Durham's bicycle infrastructure and facilities
      - Performed bike parking analysis with GIS and studied roadways and pedestrian paths with bike infrastructure added
      - Designed a high capacity bicycle storage and provided the strength and serviceability analysis of the structure

PROJECTS

Real-time Trial Heuristic Tree Search *(MS project with Prof. Wheeler Ruml)*   2019
  ▪ Designed, implemented and evaluated a real-time planning algorithm with an emphasis on balancing exploration and
    exploitation using Monte Carlo Tree Search UCB1 algorithm. And another algorithm that uses Interval Estimation.

Multi-Agent Path Finding *(AI class project with Prof. Wheeler Ruml)*   2019
  ▪ Replicated algorithms and extended results from AAAI 2005 (Silver) and AAAI 2012 (Sharon, Stern, Felner and
    Sturtevant) for optimal and sub-optimal multi-agent pathfinding.

Frontier-Based Exploration *(Robotics class project with Prof. Momotaz Begum)*   2018
  ▪ Developed a Python program with ROS that drives a TurtleBot to explore unknown areas using an uncertainty-based
    exploration algorithm and create a grid map of its environment using its laser scanner.

TEACHING EXPERIENCE

Graduate Teaching Assistant   2017 - 2019
  ▪ Introduction to Computer Science I & II
  ▪ Machine Organization and Assembly Language Programming
  ▪ Operating System Fundamentals
Tutor   2017 - 2019
  ▪ Programming Assistance Center

PROFESSIONAL EXPERIENCE

Latham Pool Products, Inc.   12/2016 - present
Software Engineer Intern
  ▪ Developed an automated customer communication system with the Advanced Message Queuing Protocol
  ▪ Participated in the design and creation of a RESTful Web Service with Java on the Spring framework
  ▪ Developed PHP plugins, HTML/CSS and maintained multiple websites on the WordPress platform
  ▪ Created a Python application that parses logs from different systems to generate a normalized output

Designer   01/2013 - 12/2016
  ▪ Created a product configuration site following product rules to generate XML and SVG files of the product
  ▪ Designed custom Latham pool products using Autodesk AutoCAD software
  ▪ Participated in the design and development cycle of applications on Microsoft Dynamics AX
  ▪ Performed QA regression testing on implementations of applications

First Call Property Services, LLC   06/2010 - 01/2013
Business Analyst
  ▪ Created a timecard application to increase the effectiveness of tracking hours and records of employees
  ▪ Participated in the evaluation of business improvements and implementation of streamlining business processes