Mitchell Spryn
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Academic Highlights

Dual Bachelor of Science in Electrical Engineering and Physics at The University of Alabama May 2015
Minor in Mathematics at The University of Alabama May 2015
GPA: 4.0/4.0

Work Experience

Microsoft – Software Developer II (FTE) June 2015

- Develop traditional machine learning and deep learning models to solve business and natural language processing (NLP) problems
- Design, implement, and maintain a question answering engine for technical questions
- Design, implement, and test an autonomous driving simulator leveraging the Unreal 4 Engine
- Design tutorials to demonstrate the usage of Azure technologies for training deep learning models for autonomous driving

NASA Glenn Research Center– Software Developer May-Aug 2014

- Designed, implemented, and tested preprocessor code integrating the Pointwise mesh generation software and the Glenn-HT Multiblock computational fluid dynamic solver
- Evaluated and augmented the Glenn-HT graphical user interface software, adding grid visualization capabilities.
- Simulated experimental shroud designs for the SEA multi-wire probe using the Glenn-HT solver

Argonne National Laboratory – Software Engineer May-Aug 2013

- Designed, implemented, and tested user interface software for the Digital Alpha Beta Radioactive Assay System (DABRAS-II) low level radiation counting system
- Evaluate and test existing hardware interface system
- Develop a quality assurance testing protocol, and deploy initial units to the field for beta testing

Robotic Automation Researcher Dec 2011 – June 2015

- Design and implement an autonomous control system for a robotic lunar excavator
- Design, implement, and test computer vision algorithms for robotic localization in harsh environments
- Model and fabricate robotic parts

Technical Skills

Programming Languages

- Expert: C, C++, C#, Python, T-SQL, U-SQL
- Proficient: Java, VHDL, JavaScript

Software Packages / Environments

- Python: Keras, Tensorflow, CNTK, Scikit-Learn, Numpy, Scipy, Pandas, Matplotlib, Django
- C/C++: ROS, OpenCV, PCL, Boost, Unreal Engine, Eigen

Academic Publications:

- Distributed Deep Reinforcement Learning on the Cloud for Autonomous Driving
  - Authors: M. Spryn, A. Sharma, D. Parkar, M. Shrimal
  - Presentation: International Conference on Software Engineering, 2018
- The Development of Synergistic Optoelectronics Based on Zinc Oxide Semiconducting Nanowires
  - Authors: A. Gupta and M. Spryn
  - Presentation: International Microelectronics and Packaging Society, 2012
- Design of Nanosensing Platform Based on Zinc Oxide Nanowire Arrays
  - Authors: A. Gupta, M. Spryn, B. Kim
  - Conference Publication: International Symposium on Circuits and Systems, 2012
- Packaging and Sensing Platform using Opto-electronic Zinc Oxide Nano-Heterostructure Integration
  - Authors: A. Gupta, M. Spryn, B. Kim
  - Conference Publication: Electronic Components and Technology Conference, 2013