JEREMY SHANNON

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JeremyShannon.com *linkedin.com/in/jeremyeshannon* *github.com/jeremy-shannon*

SKILLS

- *Autonomous Vehicles*
- *Artificial Intelligence*
- *Robotics*
- *Machine Learning*
- *Neural Networks*
- *Deep Learning*
- *TensorFlow | Keras*
- *Computer Vision | OpenCV*
- *Kalman Filter | EKF | UKF*
- *Particle Filter*
- *Sensor Fusion*
- *Localization*
- *Control Theory*
- *Python | Conda*
- *Jupyter*
- *C | C++ | C#*
- *Git | GitHub*
- *Linux | OS X | Windows*
- *HTML5 | CSS3 | JavaScript*
- *.NET Framework*
- *ASP.NET MVC*

EDUCATION

Udacity Nanodegree

SELF-DRIVING CAR ENGINEER

Online, est. completion October 2017

Master's Degree

ELECTRICAL AND COMPUTER ENGINEERING

University of Oklahoma, May 2014

Bachelor's Degree

COMPUTER ENGINEERING

University of Oklahoma, December 2001

OBJECTIVE STATEMENT

With 13 years of experience in software development and maintenance, 10 years in automated electronics testing, as well as team leadership and project/program management experience, I have much to offer while greeting the challenge of pivoting my career toward artificial intelligence and robotics. My excellent problem-solving, organizational, and people skills, in addition to my passion and curiosity for self-driving cars and machine learning, not to mention my background in electronics and (pending) Self-Driving Car Engineer Nanodegree from Udacity, all make me eminently qualified for a career in autonomous vehicles.

PROJECTS

Behavioral Cloning

- Utilized Keras deep learning framework and OpenCV computer vision framework in Python to train a car to drive in a simulator.
- Achieved full performance in the training environment, as well as a previously unseen environment, through intricate data selection/augmentation strategy and neural network tuning.
- **JeremyShannon.com/2017/02/10/udacity-sdcnd-behavioral-cloning.html**

Traffic Sign Classification

- Utilized TensorFlow deep learning framework and OpenCV in Python to train a classifier for the GTSRB traffic sign dataset.
- Implemented data augmentation and image jitter to achieve 95.6% accuracy on hold-out test data set.
- **JeremyShannon.com/2017/01/13/udacity-sdcnd-traffic-sign-classifier.html**

Advanced Lane-Finding

- Utilized OpenCV in Python Jupyter notebook to create a robust image processing pipeline for detecting, recognizing, and identifying the current highway lane in an image or video.
- Additionally calculates car position within lane and lane radius of curvature based on coefficients of polynomial fit.
- Achieved lane recognition across all frames of a fifty-second vehicle dash cam video.
- **JeremyShannon.com/2017/03/03/udacity-sdcnd-advanced-lane-finding.html**

WORK EXPERIENCE

2004 – PRESENT: USAF, TINKER AIR FORCE BASE, OK

FEB 2015 *to* PRESENT

Computer Scientist - Business Software Applications Development

- Develop and maintain business software applications utilizing .NET Framework, resulting in improved organizational efficiency and effectiveness.
- Cultivated proficiency in C#, Visual Studio, SQL Server and SQL Server Management Studio, Entity Framework, Visual Studio Tools for Office (VSTO), Windows Forms, Team Foundation Server, ASP.NET MVC, and HTML/CSS/JavaScript.
- Assumed role of team leader over five engineers and eight new and ongoing projects, performing concept formation, tracking, cost and schedule estimation, and other administrative duties in Agile/Scrum process.

JAN 2004 *to* FEB 2015

Electronics Engineer – Automated Test Software Maintenance and Development

- Maintained software for automated testing of analog and digital electronics, resulting in improved and extended avionics repair capability and reduced cost.
- Analyzed and troubleshot complex electronic circuits and procedural programs written in test-specific ATLAS language, and embraced other challenging special projects utilizing Microsoft Visual Basic for Applications (VBA), ANSI C, Linux, etc.
- Assumed roles of technical expert for a team of five engineers, project manager for that same team, and technical coordinator for a $6M hardware and software development program encompassing over 20 projects - these roles required strong technical writing, communication, and time management skills.