

Shashank Hegde

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EDUCATION

- National Institute of Technology Karnataka** Surathkal, India
 - Bachelor of Technology in Electrical and Electronics Engineering* 2013 – 2017
 - GPA: 8.17/10; Thesis GPA: 9.5/10
 - Relevant Courses:* Calculus, Linear Algebra and Probability Theory, Signal and Systems, Digital Signal Processing, Digital Processing of Speech and Audio, Advanced Digital Signal Processing, Control Theory, Numerical Methods, Pattern Recognition and Machine Learning
 - Student Organizations:* Association for Computing Machinery (ACM) NITK Chapter, SPICMACAY Mangalore Chapter, NITK Music Club
- Mahesh PU College** Mangalore, India
 - Pre University education; Major: Science and Statistics* 2011 – 2013
 - Overall Percentage: 90%; Physics, Chemistry, Maths & Statistics Percentage: 97%
- St. Theresa's School** Mangalore, India
 - High school education (ICSE) ;* 2011
 - Percentage: 81.14%

PROFESSIONAL EXPERIENCE

- Fidelity Investments** Bangalore, India
 - Software Engineer at Asset management technology* July 2017 - Present
 - Develop applications based on Supervised Machine learning for trade order selection and efficient execution.
 - Research on Reinforcement learning and its application on portfolio construction in equity trading.
 - Working with the equity trading team to develop and support the java and python based trading engine.
- Fidelity Investments** Bangalore, India
 - Summer intern as Software Developer* May 2016 - July 2016
 - Worked with the fixed income research team to build a complete end to end application using .NET
 - Construct a Excel based solution for Fixed income analysts.
- St. Aloysius College, Mangalore University** Mangalore, India
 - Research intern at Laboratory of Applied Biology, Kupperts Biotech Unit* May 2014 - June 2015
 - Built a light chamber with variable light intensity for different wavelengths of light, for algal biofuel production.
 - Studied the effect of light (wavelength and intensity) on enhanced bio-fuel production in algal system and predicting growth trends.

PUBLICATIONS

- Hegde, S., Kumar, V., and Singh, A. (2018). *Risk aware portfolio construction using deep deterministic policy gradients*. IEEE Symposium Series on Computational Intelligence (SSCI) Bangalore, Nov. 2018. (Currently accepted under review).
- Severes, A., Hegde, S., DSouza, L. and Hegde, S. (2017). *Use of LED for enhanced lipid production in micro-algae based bio-fuels and predicting growth patterns*. Journal of Photochemistry and Photobiology B: Biology, Elsevier, Volume 170, Pages 235-240. [\[link\]](#)
- Singh, A., Kumar, V., and Hegde, S. (2018). *Reinforcement Learning: AI that creates AI*. Proceedings of Data Science Congress, Mumbai, May 2018. [\[pdf\]](#)

ACHIEVEMENTS AND ACADEMIC PROJECTS

- Soda bottle classification contest** [\[link\]](#):
Winner of image classification contest by Deep Cognition. I Built a robust (100% test accuracy) Neural Network using a variant of the VGG architecture.
- Prosthetic Voice (Undergraduate Thesis)** [\[pdf\]](#):
sEMG signal controlled speech production aid for speech challenged individuals using Machine Learning. The signals were collected, filtered, pre-processed and then fed to a classifier that would predict the hand action performed. The action was translated to speech.
- Emotion Detection** [\[pdf\]](#):
A Machine Learning driven emotion detector using variations in speech signals. Using MFCC feature extraction and PCA on many other features, we built a emotion classifier.

PROGRAMMING SKILLS

- Languages:** Python, MATLAB, Java, SQL, Angular JS, C#
- Technologies:** Tensorflow, Keras, Camel, Kafka, .NET, Google Diagflow, Amazon Lex