Yogesh Chellappa Chockalingam

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Education

- **University of Wisconsin-Madison** — Madison, WI
  MS, Computer Science (Machine Learning specialization); GPA: 3.76 — *May 2019*
- **PES Institute of Technology** — Bangalore, India
  Bachelor of Engineering, Computer Science; GPA: 3.68 — *May 2015*

Experience

- **Intuit** — Bangalore, India
  Software Engineer 2 — *Aug 2015 - Aug 2017*
  - **Desktop:** Delivered key business features on TurboTax Desktop including a tax query system and a screen sharing module for connecting users to tax professionals.
  - **Quality:** Improved product quality by roughly 40% by adding a tool for crash reporting, triaging and analysis.
- **Intuit** — Bangalore, India
  Software Intern — *Jan 2015 - Jun 2015*
  - **Web Services:** Imported business and financial data from QuickBooks into TurboTax using REST APIs. Reduced the time spent on preparing a tax return by 20 minutes and data entry errors by 15%.
- **GE Healthcare** — Bangalore, India
  Software Intern — *Summer 2014*
  - **Computer Vision:** Built a computer vision system using OpenCV to track patients in a hospital ward by aggregating multiple WebRTC based live video streams and applied background subtraction to track the patient. Attained 63% accuracy.

Skills

Languages: Python, SQL, Java, Objective-C, C, C#, JavaScript, HTML/CSS, PHP
Tools: Keras, TensorFlow, Scikit-Learn, Jupyter, Flask, Power BI, Pandas, OpenCV, Git, P4V, MATLAB

Projects and Publications

- **Text Synthesis from Lip Movements [Deep Learning, Computer Vision]**
  Compared traditional computer vision techniques vs. an end to end neural network for synthesizing text from lips movements, given a video clip. Used optical flow, spatio-temporal convolutional layers and a GRU based recurrent neural network. Attained a BLEU score of 0.27. (Project Wiki)
- **Tag Prediction for StackOverflow Questions [Machine Learning]**
  Developed a multi-class, multi-label ensemble classifier with support vector machines and decision trees to predict the tags of StackOverflow questions, given the question title and body. Attained an F1 score of 0.64. (GitHub)
- **Embedding Database Records [Databases, ETL]**
  Designed a scheme to embed database records and built a pipeline to perform error detection and error correction of dirty records. Obtained 95% precision on error detection and 83% accuracy in error cleaning. (GitHub)
- **Driver Fatigue Detection System [Computer Vision, Robotics]**
  Developed a system using OpenCV to detect fatigue in drivers by uniquely combining eye tracking and blink detection, yawning detection, pulse rate and core body temperature of the driver. Achieved 80.55% precision and 97% recall with sub-second alerts being raised. Published at ICSIP 2016.
- **Question Pairs on Quora [Natural Language Processing, Deep Learning]**
  Detected pairs of questions on Quora which have the same semantics using a Siamese neural network with custom word embeddings and bidirectional LSTMs. Attained an accuracy of 64%. (GitHub)

Hackathons and awards

Winner: UW-Madison EnerHack (2018)
Winner: Intuit Hackathon (2016 & 2017)
Star of the Quarter: Intuit (2015 & 2017)
Second Runners: Harman World Hackathon (2016)