Senthil Kumaran

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Tech Lead/ Distributed Systems/ Computer Vision   https://xtoinfinity.com

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Skills

Programming Languages: C, C++, Python, Java, Go
Domains: Distributed Systems, Computer Vision, Machine Learning, Algorithms and Software Engineering
Technologies: Scientific: Gurobi, Keras, Numpy, OpenCV, Tensorflow, Weka. *Web:* Django, Flask, DBs
Cloud Native: Terraform, Mesos, Kubernetes
General: Software Design, Leadership, Business Acumen and Ability to Learn.

Experience

D2IQ / Mesosphere
- *Staff Software Engineer, Tech Lead*   July 2016 – Current

- Designed the Development and Test workflow for DC/OS Distributed System. Built and Lead the team writing tools for the software development and testing for DC/OS and Kubernetes. Wrote asyncio based software by name Mergebot and mergeservice utilized by multiple projects at D2IQ.
- Leading a Team of Developers working automating multiple aspects of Kubernetes production testing and release.

Twitter
- *Software Engineer*   2012 – 2015
  - Tools for in-house build system and deployment.

Akamai
- *Senior Software Engineer*   2009 – 2011
  - Designed and developed micro-service for log-collection pipeline in CDN.

Dell
- *Software Engineer, Tech Lead*   2002 - 2008
  - System software test automation using Python.

Open Source

CPython Core Developer.
Domain Expert and Maintainer of Internet and Networking Libraries in Python Programming Language's Standard Library.

Education

Masters of Science - Computer Science (3.21/4.0), Georgia Tech   2013-2019
Specializations - 1. Computational Perception and Robotics. 2. Software Systems

Bachelors of Science - Computer Science ,*India*   1998-2002

Certifications - Kubernetes, Udacity, Coursera, Edx   2010 - on-going

Projects

Computer Vision Projects
- *Individual*

- Implementation of Google Street View Multi-digit recognition (SVHN dataset) with Deep Neural Network using Tensorflow.
- Painterly, HDR, and implementation of many techniques from the current literature in Computer Vision, and Computational Photography.
- Carnival Photo shoot. Auto Face and Gender recognition, face segmentation and swap with themed photo shoot. Open CV ML libraries.
- Automated Smile Camera Bot with Open CV using HAAR Features.

Learn Python With Tests
- *Book*

- Beginners Tutorial for Learning Python with Tests. With good software engineering principles. URL: https://orsenthil.gitbook.io/learn-python-with-tests/

`LearnToSolveIt.com`
- *Website*
- Snippets for problems in C and Python with documentation.

Fortune Chrome Extension
- *Browser Extension*
- A minimalist extension for chrome displaying interesting quotes curated by me.

Patents

System and method for downloading content associated with optical media
System and Method for Audiovisual Content Search
Obtaining user input for inclusion in system management logs
System and method for printer-based syndication

Articles

Multi-Digit Detection and Classification using Convolutional Deep Neural Network, Gatech 2019
Computational Photography Project Portfolio - Gatech, 2019
Comma Free Codes explanation Blogpost 2015
Using Log Messages and Alert Actions *Dell 2004*

Activities

Founder, cultivator of an online community (thinnal.org) for Sourashtra language speakers
Technical Consultant, Mentor for School for Autism Spectrum Disorder, India
Python Conference Talks

Awards

Honorary Teachers Day Award 2008, SSK, Bangalore, India
Community Service Awards, Bangalore, and SF-Bay