LAKSHMINARAYANAN SADAGOPAN

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SUMMARY

 Self-motivated, fast-paced learner with a proven track record of distilling complex ideas into successful products.

EMPLOYMENT

Engineer Staff II

Broadcom Corporation

Feb 2012 - Present

Task Automation

- Co-Wrote "Tasker" A Python Framework that automatically manages tool chain dependencies, job monitoring and job scheduling by interfacing with industry standard EDA tools. **99**% of new task automation for memory compilers within Broadcom is done using "Tasker" using a client-server model.
- Independently integrated a complex "Static Timing Analysis" tool into the existing Memory Compiler using the "Tasker" Framework. User input is controlled based on configuration files written in YAML. It is now adopted as the Golden Standard.

Data analysis

Wrote data mining libraries to analyze internal data as well as customer data on huge file based data sets.
 Uses complex graph traversal and regex parsing algorithms for circuit optimizations. The library also contained APIs for static visualizations.

System Modeling

• Currently developing a Python power model to replicate power behavior of Memories on newer technology nodes. An accuracy of within **15%** of actual power numbers is currently being achieved.

Standards Implementation

• Designed an entire library of General Purpose I/O for Broadcom's flagship embedded processors. Translating higher-level specifications to implementing lower level design with great eye for detail.

Online Course

· Completed the "Algorithms: Design and Analysis" course offered by Stanford on Coursera.

Engineer, Design Test-Bench efficiency engine

Netlogic Microsystems

Aug 2008 - Feb 2012

• While working on Netlogic's industry leading Layer 7 network processor I wrote an algorithmic engine that reduced large-scale simulation problems into manageable chunks using the SKILL programming language. The engine reduced simulation run times by as much as **70**%.

EDUCATION

M.S. in Electrical and Computer Engineering – University of Florida B.E. in Electrical and Electronics Engineering – Madras University (INDIA) **Aug 2006 – May 2008**

Sep 2000 – May 2004

ADDITIONAL INFORMATION

Soul-mate ranker

• Wrote a targeted rudimentary Web Scraper (Using Beautiful Soup) and ranking algorithm to find a suitable partner from popular Indian matrimonial sites.

Languages and Technologies

Expert in: Python, UNIX,

Knowledge of: JavaScript, SQL, C, Django, Flask, HTML, CSS, Bootstrap