David Ljung Madison

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CAREER SUMMARY

CPU verification expert who can take on large verification tasks as well as toolchain creation, ready to fit in at your organization and make a difference.

Resume v5.3, 2018/05

SKILLS

Self-starter capable of writing everything from tools to testbenches to test generators.

Computer Languages

Multi-linguistic: Ruby, Perl, C, Java, Verilog, System Verilog, assembly, etc... I often become the ruby/perl resource where I work.

ACCOMPLISHMENTS

Created entire custom verification toolchain for multiple companies

Invented an original formal verification technique which went far beyond any industry standard and found all bugs in tested blocks in pre-silicon, see:

  http://DaveSource.com/Successes/Formal-Blocks/

Have taken ownership of verifying a complete CPU at multiple companies, using techniques such as creating modular testbenches

Rewrote an entire post-silicon debug toolchain months ahead of schedule at a savings of $3 million per day according to corporate calculations.

Specializes in creating state-of-the-art code generators such as a highly sophisticated reverse code packer for a custom VLIW CPU that builds itself based off of parsing the specification.

Accomplished at writing Directed-Random testbenches which provide over 95% of coverage.

Great at novel approaches to breaking things, which is why I've posted bugs in almost every tool I've used, including established tools such as compilers, linkers, shells, assemblers.

Designed/implemented custom shipping operations algorithms as a test pilot for DHL, accomplishing an order of magnitude improvement in runtime **and** savings.

Creator of shareware tools including 'album,' the world's #1 CLI album generator.

EMPLOYMENT / EDUCATION

Jan 2017	- Present	*NVidia*	Senior Verification Engineer
May 2015	- Jan 2016	*Bluechip Systems*	Verification Consultant
Feb 2007	- Dec 2013	*iCelero, LLC (3Plus1 Tech)*	Director of Verification
Jul 2002	- Present	*DaveSource Consulting*	Head Engineer
Jan 2000	- Jul 2002	*Transmeta Corp*	CPU Verification Engineer

University of Wisconsin, Madison: Electrical Computer Engineering / Computer Science [GPA: 3.0]