CECIL E. KING

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SUMMARY

I'm a full-stack web developer, new to the field, but bringing a wealth of skills from my role in ASIC verification. I have a Computer Engineering degree from UofT, and more recently I've completed the web development Coding Bootcamp at UofT SCS. At the bootcamp, I worked individually and in teams to construct applications utilizing the full MERN stack (MongoDB/Mongoose, Express, React, and Node.js). As a verification engineer I wrote object-oriented UVM tests and testbenches, and maintained in-house and third-party FPGA prototyping systems used for the successful verification and tapeout of many of the companies' ASIC designs. In these roles I developed a knack for debugging and an eye for detail that's invaluable for developing quality software. I'm eager to use the latest web technologies in developing creative solutions to problems. I invite you to peruse my Github and Portfolio pages.
Github: https://github.com/cek333
Portfolio: https://cek333.github.io/Responsive_Portfolio/portfolio.html

TECHNICAL SKILLS

Languages: Javascript, jQuery, C, Perl, SystemVerilog
Databases: MySQL, Sequelize, MongoDB, Mongoose
Frontend: HTML, CSS, Bootstrap, React
Backend: Node.js, Express, Handlebars
Version Control: Git, CVS, Mercurial

PROJECTS

Reading List: Full-stack app to search for and save books of interest.
- Github: https://github.com/cek333/Reading_List
- Deployed: https://reading-list-45753.herokuapp.com/
- Technologies Used: MERN (MongoDB/Mongoose, Express, React, Node.js), Bootstrap

Eat-Da-Burger: Full-stack app to add and update lists of burgers.
- Github: https://github.com/cek333/Eat-Da-Burger
- Deployed: https://radiant-basin-63106.herokuapp.com/
- Technologies Used: HTML, CSS, Bootstrap, Node.js, Express, Handlebars, MySQL

EDUCATION

Bootcamp Certificate: University of Toronto School of Continuing Studies (Aug - Dec 2020)
- Three month ramp up on the technologies and skills necessary for full-stack web development:
    - Frontend: HTML, CSS, Bootstrap, Javascript, jQuery, React, Local Storage
    - Databases: MySQL, Sequelize, MongoDB, Mongoose
    - Backend: Node.js, Express, MERN, Handlebars
    - Miscellaneous: APIs (ajax, json, axios, fetch), Deployment (Git, Heroku)

Computer Security and Digital Forensics Certificate: Ryerson University - G. Raymond Chang School of Continuing Education (2014 - 2017)
- Program Covered: Computer Network Security, Cryptography, Digital Forensics Systems, Security Architecture and Design, CISSP (Prep), and a Capstone Project.

Bachelor of Applied Science, Computer Engineering: University of Toronto (1999 - 2004)

EXPERIENCE

Senior Engineer, Hardware: Pixelworks (Aug 2017 - Aug 2020)
- Ran the IP and full-chip simulations. Generated regression and coverage reports. Notified IP designers of any issues. Verified test fixes.
- Wrote tests and maintained testbenches for IPs in the Iris product line using the object-oriented Universal Verification Methodology (UVM). Developed a test plan. Worked with the IP designers to debug test cases. Used coverage reports to gauge test coverage.
- Used Synopsys' Ceritfy to partition the RTL design across multiple FPGAs.

Senior Engineer, HW Emulation: Vixs Systems (Nov 2010 - Aug 2017)
Engineer, ASIC Engineering, HW Emulation: Vixs Systems (Jul 2007 - Nov 2010)
System Verification Engineer: Vixs Systems (May 2004 - Jul 2007)
- Maintained in-house and third-party FPGA prototyping systems used for the verification of XCode products, enabling first-pass silicon success on tape out. The prototyping systems were based on Xilinx's Virtex-5, Virtex-6, and Virtex-7 FPGAs.
- Developed and maintained synthesis and place and route scripts that transformed the RTL into programmable bitfiles for testing on the prototyping systems. Debugged and resolved place and route issues.
- Used C programs and the company's in-house diagnostics software to test and debug some of the XCode IPs (Transport Stream Demux, Smartcard). Assisted with the maintenance of the full verification test suite. Troubleshooted regression failures.
- Assisted the Field Application Engineers with debugging product issues and supporting customers.
- Partitioned the RTL design across multiple FPGAs using automated partitioning tools (in-house tools and later Flexras).