David **Skudra**

Software Engineer · American and Canadian Citizen

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Enthusiastic team-player with software engineering experience and a diverse development skill set

Education

University of Waterloo
Waterloo, Ontario

Bachelor's Degree, Computer Science
May 2019

- CS Major GPA: 3.33/4.00

Experience

Capital One
Richmond, Virginia

Associate Software Engineer
Aug 2019 - Present

- Engineer working under the Highline Underwriting team

Verizon
Basking Ridge, New Jersey

Software Engineering Intern
June 2018 - Aug. 2018

- Developed a point of sales web application with Java based microservices and AngularJS
- Architected and integrated a relational database with Hibernate ORM and PostgreSQL
- Added realtime updates to the web application using publisher/subscriber pattern with RabbitMQ and SockJS

NASA Ames Research Center
Mountain View, California

Software Engineering Intern
Jan. 2018 - April 2018

- Parallelized a C++ lithium-ion battery prognostic model using OpenMP and CUDA
- Executed battery prognostic model on the NASA Pleiades supercomputer, yielding a 1218.27% performance increase with OpenMP and a 905.46% performance increase with CUDA
- Improved Monte Carlo prediction accuracy in teams' C++ prognostic framework using OpenMP

Ciena
Ottawa, Ontario

Software Design Intern
Sept. 2016 - Aug. 2017

- Developed the Automation Framework for Ciena Licensing software using TCL, Python and Bamboo
- Eliminated a maximum 98 second delay from a high priority VxWorks task in C, caused by lengthy application callbacks
- Led a presentation for the Licensing team on how to continue development on the Automation Framework; presentation was recorded and shared company-wide as an example on how to use Ciena's automation stack

Skills

Languages Java, C++, C, Python, CUDA, OpenMP, Scala, PostgreSQL, Bash

Tools JIRA, Bamboo, Spark, Hadoop, Spring Boot, Hibernate, RabbitMQ, GDB, Git, Perforce, Unix

Publications & Research

Resource Intelligent Compilation for GPU Enabled Apps.
NASA STI

David J. Skudra, George E. Gorospe
April 2018

- Described a set of design strategies for NASA engineers to utilize in future GPU/CPU enabled applications
- Defined methods to dynamically generate code based on availability of GPU hardware using CUDA & C++
- Full paper available on the NASA Technical Reports Server: https://ntrs.nasa.gov/search.jsp?R=20180003378