

David Skudra

SOFTWARE ENGINEER · COMPUTER SCIENCE UNDERGRADUATE

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The best way to predict the future is to invent it. - Alan Kay

Education

University of Waterloo

BACHELOR'S DEGREE, COMPUTER SCIENCE

- CS Major GPA: 3.21/4.00

Waterloo, Ontario

Sept. 2014 - Expected Aug. 2019

Experience

NASA Ames Research Center

SOFTWARE ENGINEERING INTERN

Mountain View, California

Jan. 2018 - Present

- Working with the Diagnostics & Prognostics group under Intelligent Systems to utilize GPU programming in CUDA/C++ to increase prognostic algorithm accuracy and efficiency.
- Co-authoring paper for PHME18: Dynamic Adjustment of Simulation Parameters for Efficient Vehicle Prognostics.

Ciena

SOFTWARE DESIGN INTERN

Ottawa, Ontario

Sept. 2016 - Aug. 2017

- Developed the Automation Framework for Ciena Licensing software using TCL, Python and Atlassian Bamboo.
- 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.
- Set up a proxy service to allow simulated network elements on workstations to reach external license servers.
- Eliminated a max 98 second delay from a high priority VxWorks task in C, caused by lengthy application callbacks.
- Removed dead states and error states from a FTP finite state machine in C/C++.

Projects

Pious Academic

343 INDUSTRIES PUBLIC LIBRARY

GitHub Repository

Nov. 2015

- Created a public library in Python for usage with the Halo 5 Application Program Interface (API).
- Designed functions for parsing JSON output for user information from API endpoints, using GET requests.
- Implemented a rate limiting class using a double-ended queue to stop API keys from getting blacklisted.
- Repository available @ <https://github.com/David4Danger/16807-Pious-Academic>

OS/161 Virtual Memory

CS350 - OPERATING SYSTEMS

Private Repository

Dec. 2017

- Implemented paged virtual memory system on OS/161 using C.
- Created a coremap to free/allocate pages as necessary, and track which process they belong to.

Skills

Languages

C, C++, CUDA, Python, TCL, Scheme, Bash, SQL

Tools

JIRA, Bamboo, Insight/GDB, Git, Perforce, Rational ClearCase

Platforms

RHEL, Ubuntu, macOS

Work Authorization

Dual Citizenship

- Authorized to work for any employer in the United States or Canada without sponsorship.