David Domingo

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EDUCATION

Rutgers University – School of Graduate Studies, *New Brunswick, NJ*
Ph.D. in Computer Science *Sept. 2018 – May. 2023(expected)*
Advisor: Dr. Sudarsun Kannan

Rutgers University – School of Arts and Sciences, *New Brunswick, NJ*
Bachelors of Science in Computer Science *Sept. 2013 – May. 2017*

RESEARCH EXPERIENCE

pFSCK: Accelerating File System Crash Recovery
Guide: Dr. Sudarsun Kannan, Rutgers University *Jan. 2019 – Present.*

- Utilize modern parallel programming and adaptive scheduling techniques to exploit modern storage capabilities and reduce the runtime of modern file system checking and recovery for EXT file systems.

WORK EXPERIENCE

Rutgers University, *New Brunswick, NJ*
Teaching Assistant (*Department of Computer Science*) *Sept. 2018 – Present.*

- Lead recitations as well as develop projects exploring various computer science topics such as Computer Assembly, Operating System Mechanisms, RPCs, Restful Web Services, and distributed computing frameworks such as MapReduce
- Courses include: CS419: Computer Security, CS417: Distributed Systems, CS416: Operating Systems Design, CS211: Computer Architecture

Rutgers University, *New Brunswick, NJ*
Instructor (*Department of Computer Science*) *May. 2020 – Aug. 2020*

- Developed and presented lectures and materials covering topics around computer architecture such as computing components, C programming, assembly, digital logic, and caching
- Managed teaching assistants to assist with development of course projects and forum discussions
- Courses include: CS211: Computer Architecture

iCIMS, *Holmdel, NJ*
Software Engineer *Jan. 2018 – Aug. 2018*

- Test Lead for iCIMS strategic integrations agile team (team of 5)
- Primarily used Java/Spring and Javascript/Node.js to develop and test internal integration services that communicated with iCIMS Recruit software
- Developed initial scalable test plans and approaches to allow for fast continuous integration and deployment
- Researched testing tools for Node.js that allowed for scalable development of automated test cases
- Led frequent discussions to ensure our architectural approach for our services will yield testable/verifiable features
- Aided project progress by expanding outside of test and developed integration service features along side main developers
- Researched and architected approaches to handle user forwarding to create a seamless user interaction with microservices

IBM, *Durham, NC*
Software Developer Intern *June. 2015 – Dec. 2015*

- Software Developer intern for IBM's Rational Team Concert source code management software which focussed on aiding the agile development of enterprise applications running on IBM's mainframe systems
- Utilized Java and ANT scripting to develop various tools for project data migration for internal SCM integration efforts.
- Carry out regression testing to verify proper functionality of vital software components throughout the agile development lifecycle

INVITED TALKS AND PRESENTATIONS

Linux Storage and Filesystems Conference (VAULT '20), *Santa Clara, CA*
Topic: Accelerating Filesystem Checking and Repair with pFSCK *February 2020*

AWARDS AND GRANTS

- Travel Grant Recipient: USENIX Conference on File and Storage Technologies (FAST '20)
- Travel Scholarship Recipient: ACM Symposium on Operating Systems Principles (SOSP '19)
- ACM Student Research Competition Travel Award: ACM Symposium on Operating Systems Principles (SOSP '19)

TEACHING EXPERIENCE

Rutgers University, *New Brunswick, NJ*
Topic: Teaching Assistant for the Department of Computer Science *Sept. 2018 – Present.*
CS211: Computer Architecture (Summer '19), CS416: Operating Systems Design (Fall '19, Spring '20),
CS417: Distributed Systems (Fall '18), CS419: Computer Security (Spring '19)

Rutgers University, *New Brunswick, NJ*
Topic: Instructor for the Department of Computer Science *May. 2020 – Aug. 2020*
CS211: Computer Architecture (Summer '20)

ACADEMIC PROJECTS

Bitcoin Transaction Latency
Guide: Dr. Richard Martin, Rutgers University *Sept. 2017 – Dec. 2017*

- Semester long project exploring the latency of the Bitcoin network by performing statistical analysis on public Bitcoin transaction data.

Distributed Social Networking
Guide: Dr. Naftaly Minsky, Rutgers University *May. 2017 – Aug. 2017*

- Independent study exploring Social Network Analysis Theory and Distributed Computing models to determine a feasible distributed social networking model utilizing Moses middleware developed at Rutgers University.

SKILLS & OTHERS

Programming Languages: C/C++, Java, Python, JavaScript, MySQL, Matlab, Shell, Assembly
Markup Languages: HTML, CSS, XML, Markdown, LaTeX
Frameworks: Hadoop, MapReduce, Spark, Spring, Node.js, Flask, Nvidia CUDA, OpenCL
Development Tools: Git, Maven, Gradle, Docker, GDB, QEMU, Valgrind, Intel VTune
Software and Applications: Microsoft Office, Adobe Photoshop