

VIRAJ DAVE

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SKILLS

Programming: C, Python, Java, Assembly, C++
Software: Linux (moderate), Microsoft Office, IBM DataStage, IBM DataStudio, JIRA, Charles
Web Development: HTML, CSS, SQL
Protocols & Standards: TCP/IP, FTP, DHCP
General: Git Version Control, BASH, Bootstrap, Hadoop (Moderate)

EDUCATION

Carleton University, Ottawa, Ontario *September 2014 - Present*
Bachelor of Engineering: Computer Systems Engineering *Anticipated: May 2019*
Relevant Courses: Operating Systems, Digital Electronics, Real-Time Concurrent Systems, Data Structures and Algorithms, Introductory Real-Time Systems, Object-Oriented Software Development, Software Design, Microprocessor Systems, Network and Software Security, Software Validation, Computer Communications

PROFESSIONAL EXPERIENCE

Technical Systems Analyst Student - Developer *May 2018 – August 2018*
Royal Bank of Canada – RBC Centre, Toronto, Ontario

- Implemented a Drools REST API program on Apache Tomcat and to improve business analyst's interaction and maintenance of business rules through a user-friendly interface to increase performance of business rules execution in python scripts.
- Designed a cluster and load balancer architecture of the REST API program using Apache mod_cluster to ensure proper usage of resources for the program.
- Created Apache Hive data extracts to validate proper ingestion of data from various source systems using Hadoop infrastructure.
- Programmed a data pipeline platform using Python Apache Airflow to schedule, maintain and monitor various processes to confirm the data workflow jobs are running as expected.

Software Tester Co-Op *September 2017 – April 2018*
You.i TV – Ottawa Headquarters, Ottawa, Ontario

- Validated software functionality through exploratory testing methods such as scripts, and by manually testing the application.
- Communicated between the client, product analyst and the developers to ensure the expected result of the application is as intended in the application.
- Recorded bugs through JIRA, specifically stating the steps to reproduce the bug, which platform did the bug occur on, the severity, and the expected and actual behaviour.
- Implemented changes to JSON files to manipulate the data and by using Charles, a proxy to monitor and apply the change to the application to ensure proper data handling.

IT Analyst/Developer - Student *May 2017 – August 2017*
Canada Revenue Agency – Place De Ville, Ottawa, Ontario

- Contributed to implementing a business intelligence analytics tool to identify businesses and individuals participating in tax avoidance using identity and relationship resolution methods.
- Designed and developed several ETL (Extract, Transform and Load) tasks using IBM DataStage using SQL to understand the data from the source and performing various transformations of the data to business requirements.
- Validated and tested several ETL algorithms using IBM DataStudio to query and filter the data sources, and manually perform the transforms to ensure the tasks were performing to their expected output.

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ENGINEERING PROJECTS

Security Threat Modelling for IoT eHealth Devices, Carleton University *August 2018 – Present*

- Constructing a threat modelling tool to threat model a system within an hospital and home environment
- This threat model will determine various security vulnerabilities within each the entire system and provide recommendations to fix those issues.

Computer Automated Morning IoT Device, Carleton University *January 2017 – April 2017*

- Designed, built and implemented an “Internet of Things” device to help one with morning routines such as waking up, controlling temperature and displaying weather information.
- Responsible for implementation of Android application which will set the temperature of the room, set the alarm time, determining location and setting bus information from mobile app.

Personal Website, Carleton University *December 2016 – February 2017*

- Implementing and developing a personal website using HTML and CSS
- Website features include projects, interests, work and volunteer experience.

Tug of War Game on FPGA Board, Carleton University *November 2016 – December 2016*

- Programmed and designed a 2 player game using Verilog HDL on an FPGA board.
- Responsible for designing modules, test benches, to ensure complete functionality of the game.

TFTP File Transfer System, Carleton University *May 2016 – June 2016*

- Successfully designed and produced a TFTP file transfer program in Java with a team of 5 individuals
- Responsible for testing every scenario to ensure functionality and fixing errors due to testing in the program.

LEADERSHIP EXPERIENCE

IEEE Carleton – Office Director *May 2017 – April 2018*

- Organized outreach events in order to recruit volunteers and executives for the branch.
- Managed and communicated with the volunteers to ensure smooth operations of the club.

IEEE Carleton – Networking Night Outreach Co-Coordinator *September 2016 – February 2017*

- Advocated and advertised the conference to potential patrons to sponsor the event.
- Acted as a liaison between potential and confirmed patrons, and the conference committee.

2015 Relay For Life at Carleton University *October 2014 – March 2015*

- Member of the Entertainment and Logistics Sub-Committee.
- Developed relationships through social media and partnerships to secure contracts for equipment.

2014 Relay For Life at Maxwell Heights S.S *February 2014 – June 2014*

- Head Event Chairperson.
- Organized and planned a school wide 12-hour fundraiser to raise funds for cancer research with 350 participants that raised over \$57,000.

AWARDS

- Carleton University Scholarship for academic merit – June 2014
- Ontario Power Generation Award for high academic merit for engineering – June 2014
- Durham District School Board Student Distinction Award for leadership – April 2014