Amit Maraj

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EDUCATION

MSc. Candidate (Computer Science)
University of Ontario Institute of Technology. Start date: September 2016

BIT (Hons.) (Bachelor in Information Technology – Information Technology Security)
University of Ontario Institute of Technology, May 2016
- Graduated with Highest Distinction (3.97 GPA)

Computer Systems Technician Diploma (Ontario College Diploma)
Durham College, June 2014

CompTIA A+ certification (220-801, 220-802)
JNCIA-Junos (Juniper Networks)

EXPERIENCE

Principal Investigator
Durham College | December 2015 – present

- Led projects from start to finish for clients including inception of a mutually agreed upon, scope dictated work plan all the way to successful final solution delivery.

- Conducted interviews and hired students as Research Assistants to help aid in project research.

- Supervised progress as outlined in the created work breakdown structure using sound management techniques throughout duration of project.

- Reported project progress to client as outlined in terms of contract.

Professor (Faculty of Business, IT & Management)
Durham College | September 2014 – present
Courses taught: **Computer Systems** (Hardware & Software), **Computer Operating Systems** (Windows & Linux), **Scripting & Automation** (Windows & Linux), **Web Development** (Backend & Frontend)

- Delivered extensive lectures within a classroom environment of up to 100 students, fostering a conducive learning experience.

- Developed and implemented daily and unit lesson plans for 2nd year students, administered tests and evaluations and analyzed student performance.

- Issued mid-term and final grades, registered students for classes and performed advisor functions.

Full Stack Web Developer
Ansik Pitstop (www.getpitstop.io) | February 2016 – August 2016
Proficiencies: **HTML5, CSS3, JavaScript, React.js, Node.js, Python, MongoDB, PostgreSQL, Git, AWS.**

Backend:

API Server:

- Created a RESTful API with POST, PUT and GET operations to PostgreSQL and MongoDB database management systems using the Swagger API framework utilizing technologies such as: jwt, promises, logging, encryption and robust validation.

- Ensured intended CRUD operational outcomes along with optimal code coverage by writing unit, integration and end-to-end tests using the mocha testing environment, chai assertion library and Istanbul code coverage tool.

Infrastructure:

- Worked with AWS EC2 to manage development and production clusters across multiple availability zones.

- Created and deployed backend cron jobs to collect, correlate and aggregate data from multiple sources to update relevant database tables with pertinent collected data.

- Collaborated with team on code development using the GitHub and Git version control platforms.

- Developed multiple Python scripts for database migration, update and dump automation.

Frontend:

Dealer Dashboard:

- Developed and implemented complete architecture of company's dealership dashboard - a dynamic web application aggregating and analyzing metrics and data from multiple sources leveraging a variety of external and internal APIs.

- Set up working cloud-based AWS server with a Node.js, Express.js, React.js & Webpack, AJAX and Socket.io technology stack to host the dashboard.

- Implemented dashboard in React.js to compartmentalize individually called data components using WebSockets and AJAX for dynamic page loading and interaction.

Website:

- Planned, outlined, developed and implemented entire revamped company website using the Pug (Jade) templating engine on Node.js.

- Implemented CSS3 media queries and fallbacks for cross-browser and mobile viewing compatibility.

- Ported company website to React.js to support for upcoming projects.

Full Stack Web Developer
Konkussion inc. (www.konkussion.com) | March 2015 – October 2015
Proficiencies: **HTML5, CSS3, Bootstrap, JavaScript, Pug (Jade), Node.js, Redis, MongoDB, Git.**

- Wrote efficient and optimized code in Node.js and NoSQL for multiple backend services, such as real time PDF generation and MongoDB collection modelling and interaction.

- Took care of aesthetic design implementations and tweaks and overhauls on company's main webpage, all performed with Pug (Jade), CSS, Bootstrap and JavaScript.

- Procured multiple projects at a time, while completing them within a given time frame along with documenting all my findings and research.

PROJECTS

UAV Prevision Agriculture Middleware | January 2016 – June 2016

- Led project that consisted of developing a very tailored middleware solution for the client to deliver a streamlined end-user experience to clients. The final product comprised of a comprehensive web application, various server-side scripts along with a modeled relational database.

Message in a Bottle Web Application | September 2015 – November 2015

- Worked in a team to develop a web application hosting encrypted message delivery to users of choice.

- TLS 1.2 asymmetric cipher to negotiate secure endpoints implemented for data transfer between server and client.

- AES 256-bit symmetric encryption with a CBC mode of operation implemented for secure message encryption on server.

- MySQL database created to hold all user credentials including SHA-256 hashed and salted passwords.

Photo Hosting Web Application | October 2015 – December 2015

- Developed a photo hosting website using technologies such as HTML5, CSS3, bootstrap, jQuery, PHP and MySQL.

- Consisted of secure user login along with robust photo uploading and version procedures and broad photo-querying capabilities.

Doodle Dodge Android Game | February 2013 – May 2013

- Created a mobile game integrating object-orientation, class hierarchy, a wide variety of data structures along with optimized code including: sorting, iteration and data manipulation based on efficient time complexity analysis, stringing together very smooth gameplay. Published on the Google Play Store with over 13,000 downloads.

GPS Navigation System | June 2014

- Flawlessly implemented Dijkstra's shortest path algorithm to yield a basic, yet efficient GPS navigation system. This was based upon 2 separate metrics within the country between destinations. Elasticity and scalability in the program allowed for dynamic metric updating.

- Recreated Prim's algorithm to provide a minimum-spanning tree between all popular destinations in the country based on 2 metrics.