MARK KOPEC

P: 647-884-7223   mark.kopec@gmail.com   www.mkopec.com   LinkedIn   Github

Software Developer, licensed Professional Engineer and Project Management Professional with over 10 years of experience

SKILLS

Front-end: JavaScript ES5+, React.js, Redux, D3.js, CSS3, HTML5
Back-end: Ruby, Ruby on Rails, Node.js, AJAX , AXIOS, Express, SQL, Rspec, MongoDB, Amazon Web Services
Other: Rest API, Git & GitHub, Atom, VSCode, MatLAB, AutoCAD, SolidWorks, Heroku, webpack, OOP

PROJECTS

Rise | *(React.js, Redux, Rails 5, AWS SES, MongoDB, Google Material UI)*   **live** | **github**
Full stack application that helps users get raises and promotions by tracking their goals and accomplishments
- Integrated the AWS SES notification service and a node-scheduler that triggered asynchronous actions to push email notifications to the user based on their selected timing preferences, which promoted routine use of the application
- Implemented Google's Material UI library to create a unified and intuitive interface that reduced the amount of time a user spent learning to navigate and use the application
- Coordinated and led the team through the design process for feature selection, storyboarding, wireframing and task delegation to ensure component integration was efficient and error free

Air-Camp | *(React.js, Redux, Rails 5, AWS S3, PostgreSQL)*   **live** | **github**
Faithful reproduction of the website HipCamp
- Optimized web component renderings using React lifecycle methods and Redux state changes, resulting in a minimal number of DOM operations for a faster and responsive user interface
- Utilized Active Storage to store image uploads using AWS S3, reducing server load and allowing app scaling
- Incorporated user authentication with database and model-level validations, allowing passwords to be safely stored with a PostgreSQL database and prevented users from signing up with non-unique usernames

PowderGraph | *(D3.js, JavaScript)*   **live** | **github**
Data visualization for snow and rain amounts in Lake Louise, Canada over the past century
- Designed an algorithm that parsed and filtered 1,000+ data points from a csv file which only maintained the data necessary for the visualization, resulting in a lightweight and responsive application
- Employed the D3 exit/update/enter cycle to ensure seamless graph transitions in response to changes in user inputs

EXPERIENCE

Project Manager | *Imperial Oil Ltd.*   *May 2011 - May 2016, March 2017 - Sep 2017*
- Overhauled the division's purchase order and project management processes by creating a variety of VBA macros and processes that automated all manual input interactions and report extractions with SAP, which reduced financial recording errors by 87% and data entry time by 73%
- Developed an automated testing strategy using a Python script to validate over 100,000 data entries were migrated flawlessly when SAP was upgraded from version R2 to R3
- Supervised construction crews onsite and demonstrated strong conflict resolution by effectively mediating disputes between various contractor groups

Internal Auditor | *Imperial Oil Ltd.*   *Oct 2016 - Dec 2016*
- Created a VBA macro to dynamically connect Microsoft Project with the division's existing Excel based project scheduling process to visualize conflicts and eliminate errors when making changes, which resulted in reducing planning efforts from 5 to 1 day a month

Mechanical & Reliability Engineer | *Imperial Oil Ltd.*   *Sep 2007 - May 2011*
- Developed a Python script to manipulate large industrial equipment 3D laser scan data and automatically build it in a stress analysis modeling software for analysis, which reduced typical assessment time from 1 month to 3 days
- Demonstrated strong technical capabilities and innovative problem solving when completing detailed analysis of equipment failures and designing custom repair options to extend the utility of equipment

EDUCATION

University of Toronto - *BASc Mechanical Engineering, 2007*
AppAcademy - *Full Stack Software Developer Course - 2019*