

MARK KOPEC

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[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, Express, 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 node-schedule library that triggered asynchronous actions to push email notifications to the user based on their selected 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](#)

Full-stack application for finding and booking campsites

- 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
- Securely stored user passwords on a PostgreSQL database by implementing a user authentication strategy using the bcrypt hashing function which ensured plain text passwords were not stored on the database

PowderGraph | D3.js, JavaScript

[live](#) | [github](#)

Data visualization for snow and rain amounts in Lake Louise, Canada over the past century

- Employed the D3.js exit/update/enter cycle to ensure seamless graph transitions in response to changes in user inputs
- Designed an algorithm that parsed and filtered 1,000+ data points from a csv file ensuring only data necessary for the visualization was transmitted throughout the application, which ensured a quick and responsive user experience

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 VBA macros that automated all manual data inputs and report extractions with SAP which reduced entry time by 73%, while reducing errors by 87%
- 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
- Effectively supervised onsite construction crews of up to 60 people from various disciplines and demonstrated strong conflict resolution skills by effectively mediating disputes between various contractor groups

Internal Auditor | Imperial Oil Ltd.

Oct 2016 - Dec 2016

- Conducted technical and financial reviews to ensure adherence to company policies and identify opportunities for improvement
- 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 days 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

AppAcademy - San Francisco, USA - Full Stack Software Developer, 2019

Project Management Institute - Calgary, Canada - Project Management Professional, 2018

University of Toronto - Toronto, Canada - BASc Mechanical Engineering, 2007