Logan R. J. Drum, P.Eng

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Education

Memorial University of Newfoundland (MUN) – St. John's, NL   2010 – 2017
Bachelor of Engineering, Computer Engineering
Faculty of Engineering and Applied Science

Gonzaga College High School – Washington, D.C., USA   2006 – 2010
Graduated with honors from Grade 12

Certifications

- Professional engineering licensure with valid stamp, PEGNL   April 2022 – Present

Work Experience

Innovative Development & Design Engineers Ltd. (IDDEL)   November 2017 – Present
Full-Stack Software Developer

- Designing and developing a CAE web application for designing septic systems and building associated document for regulators
- Front-end of website developed in Angular 2.0 framework which includes Google Maps integration, ray tracing algorithms, geodesic algorithms, form building, asynchronous API calls
- Back-end API developed using Django framework with association with PostgreSQL database
- Associated Python code for performing septic design analysis for both Advanced Enviro-Septic and conventional systems for most of the provinces and territories of Canada, .docx manipulation and document building, intelligent system for picking appropriate CAD drawing for a given design
- Server deployment on Microsoft Server 2021 hosted on AWS via EC2 instance with S3 data storage
- Hired, mentored, and lead a team of junior developers, training them in Angular 2.0, Django, and Python

Computer Engineer – Air Dispersion Modelling

- Managed several air dispersion models using CALPUFF suite of software, manipulated data files in Fortran 95, retrieved necessary geographic data utilizing R programming language
- Compiled data, interpreted results, and wrote detailed documentation of the entire process as required for an Environmental Preview Report which were released for public review
- Performed several public presentations on the reports and their findings

Computer Engineer – Consulting

- Created and implemented digital adoption plans for several companies, worked with clients to determine their needs, determined hardware and software solutions for clients, implemented the solutions
- Worked with external contractors to implement a custom software solution for drive-thru oil chain shops, worked with client to come up with an appropriate work processes, compiled vehicle and oil/oil filter data by scraping the client's vendor's website using Python scripts, administered the system for client after implementation
- Administered computer and networking systems for several clients, ensured the systems stay up to date, maintained appropriate security protocols, and handled incidents that arose

Skills

- High level of computer literacy over many current platforms including MacOS, Linux, and Windows, various servers, software, and mobile development environments including both Android and iOS
- Has functional programming experience in C, C#, C++, Fortran, Java, JavaScript, Matlab, Objective-C, Python, R, TypeScript, along with exposure to Go, PHP, and Swift
- High proficiency with web development frameworks, languages, and libraries including Angular 2.0, React.js, Vue.js, as well as HTML and CSS
- Worked with various Assembly languages and VHDL for hardware interfacing such as for a microcontroller or FPGA.
- Working knowledge of AWS EC2 and S3 along with experience with Heroku and several other hosting platforms
- Experience working with many modern databases including PostgreSQL, MySQL, SQLite, etc.
- Strong Leadership skills
- Excellent Written, Verbal, and Time-Management skills

Relevant Software Projects

Force of Will TCG Database Website

- Created a serverless website in Angular 2.0 that functions as a card database for the card game Force of Will, unfortunately at this time the API where the images were being retrieved from has since been taken down

Custom TV Channel Website

- Developed a website in Angular 2.0 that can be used to create custom schedules and then play media at specified times as well as displaying the current schedule
- In process of upgrading the system with a Django API to transform the application in a streaming API utilizing DASH and/or HLS protocols to allow for better organization of media and performance of system

References

Available upon request.