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Robert Beaudenon

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Experience

Backend Developer   **Bell**   **July 2021-Today**
Cybersecurity - Network
- Building a Vulnerability Management Tool that allow analysts to tack and remediate vulnerabilties.
- Technical Product Onwer - Leading the continuous improvement initiative to make our services more robust and scalable.
- DevOps Prime - Assisting in communicating and standardizing the provisioning of our pipelines and integrations.
- Mentored interns over the summer and designed custom projects to onboard them gradually.
- Leveraged knowledge in Django, Python, REST, GraphQL, PostgreSQL, Docker, Openshift, Linux, Elastic Stack (ELK).

Software Engineer   **Cyberhunt**   **Mar-May 2021**
White Hacking
- Automated the onboarding process of new customers on the platform to improve integration time.
- Optimized scripts that populate the database using multithreading and decorators to make this process faster.
- Added new features to the backend that allowed us to leverage ML techniques in order to improve our solution.
- Leveraged knowledge in Git, Python, Typescript, Graphql, MongoDB, ML, Jupyter.

Software Developer   **Voyant**   **Apr 2020 - Today**
Computer Vision
- Integrated object detection in videos using Google vision API, Detectron2 and supervised a team of 8 to build the website.
- Built large custom datasets, preprocessed the data and trained models to increase the recognition accuracy.
- Leveraged knowledge in Git, GCP (Google Cloud Platform), CVAT, Computer Vision, Python, Bash.

Software Developer Intern   **National Bank of Canada**   **May - Sep 2019**
Bank IT Security - Team IAM (www.nbc.ca)
- Implemented scripts to automate the deployment of a vault solution that manages the access of high privileged users to servers.
- Automated the deployment of an Agent to monitor the vault solution.
- Integrated the users and the servers of the bank with the vault solution.
- Leveraged knowledge in Git, Linux (CentOS, RHEL), Windows (2012R2, 2016), Ansible, Terraform, Jinja2, Docker, Jenkins, PowerShell, AWS, VMware, ELK (Elasticsearch, Logstash, Kibana), Jira, Agile.

Software Developer Intern   **Dataflow**   **Jun - Aug 2018**
Solutions for the Banking and Finance industry (www.dataflow.com.lb)
- Developed an Android application to store and manipulate records that give insights on students.
- Created a Responsive Design adapting to various screen sizes to provide a good user experience to customers.
- Leveraged knowledge in Git, SQLite and programmed in Java using Android Studio IDE.

Education

Concordia University - Montreal, QC   **Sep 2018 - Jun 2021**
- **Major:** Software Engineering, B.S.E (GPA: 3.77)
- **Programming Coursework:** Algorithm & Data Structures, OS, Artificial Intelligence, Data Systems, Big Data Analytics, Machine Learning.

Engineering Projects

Personal Website: https://robertbeaudenon.github.io/Personal-Website/index.html

Stack Overflow Quality Predictor   **Win 2021**
- Classified questions as high/low quality to suggest to a user to reformulate a question before submission using Apache Spark and Dask.
- Compared Apache Spark and Dask by studying their performance on the same Kaggle dataset (CPU, memory, execution time)
- Utilized: Git, Python, Spark, Dask, Jupyter.

Real Time Inventory Auditing System   **Fall 2020 - Win 2021**
- Developed a platform that allows real time auditing of warehouses to increase inventory accuracy and reduce unnecessary expenditures.
- Worked on authentication, scheduling audits, recommendation system and collecting insights from audit records.
- Utilized: Git, GitHub Actions, Django, Angular, MongoDB, AWS, Agile.

Face Recognition in Zoom Videos   **Fall 2020**
- Built a custom dataset on specific people to recognize, preprocessed it, applied data augmentation and labeled it.
- Trained Detetctron2 and analyzed the effects of different environments to understand how well the model can generalize.
- Utilized: Python, Google Colab, CVAT, Detectron2, Docker.

Artificial Intelligence Optimal Path Finding Algorithm   **Sum 2020**
- Generated a customizable crime risk map based on predefined crime rates data at specific coordinates.
- Implemented an A* heuristic search algorithm to find an optimal path between two coordinates on the map under 10 seconds.
- Utilized: Python, PyCharm IDE.

Emoji Classifier   **Fall 2020**
- Built a dataset using emoji sheets images and their metadata to classify emojis based on their 10 categories.
- Trained multiple classifiers (tree, forest, logistic, svm), identified the good hyperparameters and visualized the scores in plots.
- Computed the confusion matrix for the best classifier of each type to inspect mistakes and evaluate performance.
- Visualized the feature importance and weights to understand why certain features are important and if they are interpretable.
- Utilized: Python, Jupyter, Sklearn, Numpy, Matplotlib.

Campus Navigation Map   **Win 2020**
- Developed an Android application for university students that allows users to navigate on the Concordia campus using Google Maps API.
- Implemented outdoor and indoor navigation between classes and displayed outdoor points of interest to facilitate the life of students.
- Utilized: Git, Kotlin, SQLite, Android Studio IDE, Jenkins, AWS (EC2), GCP, Zenhub.

Marketplace Website (Personal Project)   **Win 2020**
- Developed a platform for university students that allow users to request services or make money by applying for services.
- Designed a RESTful backend server to allow real time messaging, geolocation, rating and image upload between the users.
- Utilized: Git, Angular, NodeJS, MongoDB, Heroku, AWS (S3 Bucket), Socket.io, JWT and debugged using Chrome Developer Tools.

Twitter Website Replica   **Win 2019**
- Implemented a friendly interface of Twitter.
- Worked mostly on the back-end using NodeJS creating features such as Follow/Unfollow a user, Registration and Like/Delete a tweet.
- Utilized: Git, Angular, NodeJS, MySQL, Visual Code IDE.

Restaurant Application   **Win 2018**
- Designed the architecture using various diagrams to generate the model and get an overview of the system.
- Implemented the application that assisted waiters for reservations, ordering, and billing and owners for creating menus.
- Utilized: Git, Java, Windows builder plugin, Umple (to generate the model), Class Diagram, Sequence Diagram, State machine.

Skills

Technical tools: Python, Java, C, JavaScript, Angular, Apache Spark, Html/CSS, SQL, NoSQL, Cloud(AWS, GCP, Openshift), Docker, Linux, Git, Agile.

Languages: Fluent in English, French and Arabic.

Awards and Acknowledgement

- Strong interests in Cryptos and NFTs.
- Strong interest in Surfing, Skating, Hiking, Travelling, Photography and Music.
- Helped to deliver and organize food boxes to support victims of the Beirut port explosion with World Central Kitchen.
- Participated in a Capture the Flag (CTF) event organized by CSE Canada and attended the VARONIS webinar on Anatomy of an attack.
- Participated in two AWS Gameday Hackathons (Machine Learning & Cloud) and attended the AWS re:Invent conference.