

Sajan Raj Ojha, PhD

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CAREER OBJECTIVE

Result-focused UX Researcher and UI Engineer with a can-do attitude and experience in designing and developing various generic web dashboards and data visualization. Productive in both team-based and self-managed projects.

SKILLS

- **Languages** - Golang, JavaScript, HTML/CSS, SQL (MySQL, PostgreSQL), NoSQL (MongoDB).
- **Operating Systems** - MacOX, Windows (7/10), Linux (Ubuntu, RH)
- **Fields** - Agile Software Development, Design Documentation, Mental Model, User Centered Design, Data Integration, Data Representation, Data Visualization, Cloud applications (EC2, Lambda, S3, Route53)
- **Tools** - VS code, Slack, Postman, Sketch, Git, IntelliJ, Sketch, Balsamiq, MockPlus, Adobe XD

PROFESSIONAL SUMMARY

- Extensive experience in **Conceptual design, wireframing** and **prototype** design.
- Experience building **generic** and **scalable** applications.
- Experience building RESTful microservices using **Node JS** and **Go Lang**.
- Experience building modular applications using **AngularJS**.
- Vast knowledge of **UML** design.
- Vast experience in a multicultural work environment.
- Self-motivated, excellent technical writing and oral communication skills, Strong analytical problem-solving skills and willingness to learn new technologies.

PROFESSIONAL EXPERIENCE

CAPITAL ONE FINANCIAL CORPORATION – RICHMOND, VA

JULY 2019 – ONGOING

POSITION: SOFTWARE ENGINEER

PROJECT: DATADOG METRICS

Datadog monitors cloud applications by monitoring servers and databases. I extended Datadog metrics on nine different GoLang applications. Extending 100% visibility for every RESTful calls made across various microservices. The metrics measured the http request, payload size and time taken to send the payload.

Responsibilities

- Implemented generic API across dashboard apis and comet docs api.
- Researched the best possible chart to visualize route metrics data.

Tools: Go, DataDog dashboard

PROJECT: CUSTOMER SCRAPER

HUB is a centralized legacy data warehouse. It contains all the information about customers, deals and their facilities. Querying HUB frequently is an extensively expensive operation resulting in many http 500 errors. I implemented a customer scraper over NATS, a cloud native message broker that fetches new customer information on a fixed schedule. Reducing the continuous query load from the HUB.

Responsibilities

- Implemented customer scraper that scrapes data from HUB Customer API.
- Implemented scheduler so the scraper pulls the fresh/modified customer data on a scheduled time every day.
- Send customer information over NATS so that can be consumed by various NATS clients.

Tools: Go

PROJECT: MATURING FACILITY NOTIFIER

Underwriter and Portfolio Manager had no easy way of finding maturing facilities for their customers. I implemented a microservice that sends a list of customers whose facilities were maturing on desired set date to the underwriters.

Responsibilities

- Created a scheduler to receive facility information from Facility scraper.
- Send NATS message that can be consumed by various clients.

Tools: Go

PROJECT: ONE VIEW INTEGRATION

Oneview is a cloud hosted enterprise level web app that stores data from various lobs securely. I created a POC pipeline to store and retrieve documents to/from Oneview also maintaining the storage on Comet Data repository.

Responsibilities

- Implemented an api that uploads documents to Oneview.
- Implemented an api that downloads documents from Oneview.
- Implemented a copy api that migrates documents from own Comot S3 bucket to the Oneview.
- Created a scheduler that copies data offline.

Tools: Go, AWS S3, Alfresco

PROJECT: AMPLITUDE INTEGRATION ON COMET DOCS

Amplitude provides core analytics reports by recording user interaction on the app. I implemented Amplitude on Comet Docs (PT Dashboard UI and Team Assignments UI).

Responsibilities

- Verified and validated the logged interaction and events with PO.
- Added generic event interaction.

Tools: Angular

CASS INFORMATION SYSTEMS – ST. LOUIS, MO

JAN 2019 – JUNE 2019

POSITION: LEAD UX RESEARCHER & UI ENGINEER

PROJECT: CASS PORT AND DE CONFIG

CASS Information systems handle best freight route information, audit and payment of its clients. I designed and deployed a client facing application called Cass port into production. I am also responsible for creating, validating various wireframes for the same. Similarly, I am responsible for creating new wireframes for its Data Entry (DE) configurator application. I have redesigned a UI for DE where I reduced the number of clicks from 7500 to 1200.

Responsibilities

- Gathered requirements from various stakeholders to create a new responsive design.
- Performed various brainstorming, focus groups and ethnographic studies with the end users.
- Design various prototypes using **Adobe XD** following design guidelines.
- Perform A/B testing of various prototypes with the stakeholders.
- Validated the capabilities and limitation of the wireframes.
- Mentoring offshore UX designers.
- Integrated **Angular 6** and **Bootstrap** with **Tableau Dashboards**.

Tools: Adobe XD, Angular, Bootstrap, Tableau Dashboards.

KNOWDIVE GROUP – TRENTO, ITALY

MAY 2018 – DECEMBER 2018

POSITION: SR. UX ENGINEER AND UI ENGINEER

PROJECT: DATASCIENTIA

Datascientia foundations main aim is to build a data-centric infrastructure to understand and exploit the diversity in Data by demonstrating various projects. It required a multilingual website to advocate its mission. I increased the findability of projects and team members by 32%.

Responsibilities

- Gathering requirements from various stakeholders.
- Developed five websites using Wordpress for various Datascientias' projects.
- A/B testing of various prototypes with the stakeholders.
- Developed Restful API for language translation to translate Datascientia website into various languages using **Java - Spring** and store it on **MySQL**.

Tools: Wordpress, MySQL, Node JS, Express, Angular JS, Angular, MockPlus.

NHS – SCOTLAND, UK

NOVEMBER 2017 – APRIL 2018

POSITION: SR. SOFTWARE ENGINEER

PROJECT: SAFE HAVEN IN A BOX (SHIB)

NHS Scotland aimed at designing a cross-jurisdictional application across Europe to integrate Health Information to provide correct analysis of the drug trials on the patients. I delivered a doc application based on the cohort to easily design drug experiments, leading to faster experiment cycle. Decreased time to traverse various drugs and their side effect by 53%.

Responsibilities

- Requirement elicitation to design and develop an integrated, cross-jurisdictional, multilingual and user-friendly semantic application.
- Generated Data structure to integrate cross-jurisdictional data using SNOMED and ICD-9/10.
- Integrate various datasets in different formats and structures into a common **JSON-LD** structure.
- Created APIs using **Node JS** to fetch semantic responses from **PostgreSQL**.
- Built a multiview, multi-contextual, multilingual and multi platform Semantic UI using **Angular JS**.
- Designed a graph-based exploration mechanism to explore medical products using **D3** and **Vis JS**.
- Deployed the application of **Amazon EC2**.
- Performed UX evaluation with the stakeholders.

Tools: JSON-LD, PostgreSQL, Node JS, Docker, Express, Angular 6, Vis JS, D3 JS, Leaflet JS, Grunt, Bower, Yo.

ISI – LOS ANGELES, CA

JUNE 2017 – OCTOBER 2017

POSITION: SR. SOFTWARE ENGINEER - INTERNSHIP

PROJECT: AMERICAN ART COLLABORATIVE (AAC)

AAC consortium wanted a single tool to visualize its 1.5 million triples stored across 14 different museums. The triples contain information about various artifacts, artists and collaborators. I designed a tool called Semantic-UI that allowed easy visualization of the lined data in a single page application. Increased findability of related artists and artifacts by 20%.

Responsibilities

- Deployed a Mapping and a visualization server on **Amazon EC2**.
- Created APIs using **Node JS** to fetch linked data from **Apache Jena Fuseki**.
- Created **Java Spring** Restful APIs to find influenced by artist and influenced artist information from **DBpedia** and also stored it on **MongoDB**.
- Built a multiview, multi-contextual, multilingual and multi platform Semantic UI using **Angular JS**.
- Designed a graph-based visualization and exploration mechanism using **D3** and **Vis JS** to explore artifacts.

Tools: JSON-LD, Node JS, Angular JS, Express, Docker, Vis JS, D3 JS, Leaflet JS, RDF Translator, Grunt, Bower, Yo, MongoDB, Java Spring, MongoDB.

KNOWDIVE GROUP – TRENTO, ITALY

APRIL 2013 – MAY 2017

POSITION: SOFTWARE ENGINEER & UX ENGINEER

PROJECTS: SMART SOCIETY, TRENTINO OPEN DATA, DIGITAL UNIVERSITY, NEWS VIZ

I joined Knowdive Group as an Intern and I got a chance to work on various European projects throughout my tenure period. I developed various semantic applications like Digital University, Trentino Open Data. In the Digital University, the application I designed was able to decrease task completion time while searching for People, Departments and Journals by 20%. Similarly, my Trentino Open Data application increased overall usability by 44%.

Responsibilities

- Requirement elicitation on various Open Data Settings for linking and visualizing a multitude of Point of Interest in the province of Trento, Italy.
- Prototype Design for Open Data Trentino using **Balsamiq**.
- Developed multilingual application for Open Data Trentino using **jquery, bootstrap** and **EQL**.
- Usability and User experience validation with the end users.
- Requirement elicitation on various Digital University Settings for linking and visualizing artifacts.
- Mockup design and validation using **Balsamiq** for Digital University Project.
- Design and Development of **SemUI tool** for visualizing contextual semantic information.
- Designed **Geo-Spatial Ontology** following **INSPIRE**.
- Created **Java Spring** Restful APIs to fetch semantic responses from **PostgreSQL**.
- Created a wrapper **Node JS API** to not to expose Java Restful API directly to the client.

Tools: JSON-LD, EQL, Node JS, Angular JS, Angular (2,4), Express, jquery, Vis JS, D3 JS, Leaflet JS, RDF Translator, Grunt, Bower, Yo, Bootstrap, Java-Spring Boot, Protégée, Docker, MongoDB, PostgreSQL.

SUSTAINABLE SOLUTIONS – LALITPUR, NEPAL

MARCH 2008 – AUGUST 2010

POSITION: SOFTWARE ENGINEER

PROJECTS: mSUPPLY, CGT BRIDGE, TEXTPATTERN

Sustainable Solutions is a Newzealand based Software Company. Its major focus is on the development of medical pharmaceutical management system. I developed various modules in the mSupply application.

Responsibilities

- Designed and developed an integrated tender management system used by various Oceanic countries.
- Designed and developed a patient record system using **4D SQL v11**.
- Designed and developed a Hospital Management System module in mSupply.
- Implemented web interface for the desktop application using **4D server v11**.
- Created Restful APIs for user authentication, and fetch data from 4D server.
- Designed and developed a mobile version of the system using **Sencha Touch2, 4D V13**.
- Upgrade system from **4D v3 to 4D v11**.
- Designed a payment bridge tool to import payment information from the **MySQL** database to the **4D database**.
- Provided software support to various national and international clients.
- Provided in-house training and installation of the system.
- Generate custom **medical** reports.
- Integrate and import data from various legacy systems into mSupply.
- Worked on developing custom reports and scripts for **Moneyworks**.

Tools: 4D (v3, v11, 13), JSON, MySQL, Javascript (ExtJS, Sencha Touch, Dojo)

EDUCATION

P.H.D IN COMPUTER SCIENCE, 2013-2018

University of Trento, Trento, Italy

- Worked on bridging the gap between the fields of Human-Computer Interaction and Data Semantics.
- Developed various generic and contextual visualization applications.
- Extended ontologies.

ERASMUS MASTERS IN COMPUTER SCIENCE, 2011-2013

RWTH Aachen, Aachen, Germany & University of Trento, Trento, Italy

- Worked on combining sensor data from multiple game controllers (Wii Controller, WiiBoard and Microsoft Kinect) to provide a more interactive video game experience.
- Developed a crowdsourced tool to find location duplication in GeoNames

REFERENCES

Available upon Request