

VALERY NGUYEN

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[PORTFOLIO](#)

[GITHUB](#)

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SKILLS

JavaScript, React.js, Redux.js, GraphQL, HTML5, CSS3, Ruby, Rails, Express.js, Node.js, MongoDB, PostgreSQL, Docker, Heroku, Git

EXPERIENCE

Software Engineer | Control Systems

Orano USA

Oct 2011 – Dec 2014 | May 2017 – Jan 2019

- Developed PLC code utilizing Siemens STEP 7, Ladder Logic, Grafsets, Function Blocks, and Structured Text Language.
- Designed and implemented software solutions for nuclear fuel manufacturing material handling, part tracking, and data storage and retrieval.
- Led PLC software tests on Siemens PLC (SIMATIC S7-400) test platform using Siemens STEP 7 and WinCC Open Architecture, and delivered four complete software programs for commissioning.

Mechanical Engineer

Orano USA

Jan 2015 – Apr 2017

- Performed structural analysis on support structures for automation systems' hardware using ANSYS Mechanical APDL and ANSYS Workbench to verify and establish structural qualification.
- Executed over 60+ evaluations of support frames, anchors, and welds to ensure structural integrity using ANSI/AISC N690-94 standard and AWS D1.6:1999 code.
- Transmitted accelerations, reactions, and deflections to interfacing construction and mechanical organizations to support 18+ field changes and design improvements.

EDUCATION

University of California, Los Angeles ([UCLA](#)) - B.S. Mechanical Engineering, 2011

App Academy - Web Development, 2019

PROJECTS

somethingSpecial (ReactJS, ReduxJS, Ruby-on-Rails)

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

E-commerce web app for desktop, table, and mobile users

- Built an e-commerce application implementing product categories, searches, reviews, and wish list functionalities by leveraging RESTful APIs and standardized CRUD patterns.
- Devised the product search bar by combining search queries capabilities with an autocomplete feature—based on a pre-fetched list of product titles—resulting in richer UI/UX.

LightChat (GraphQL, Docker, MongoDB, ExpressJS, ReactJS, NodeJS)

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

Live chat app with channel posting and direct messaging features

- Engineered the real-time messaging functionality entirely with GraphQL/Apollo mutations and subscriptions.
- Simplified the server configuration by joining two separate HTTP and WebSocket servers into a single server and setting up a listener on one port for all requests, thus allowing deployment of the Docker-based app to Heroku.

CoolBnb (MongoDB, ExpressJS, ReactJS, ReduxJS, NodeJS)

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

Travel site with Google Maps location search and lodging booking functionalities

- Implemented the back-end logic allowing users to filter available lodging options based on map location, dates, occupancy, and price, by utilizing Mongoose models and executing queries.
- Redesigned the marker manager to track the markers located within the map boundaries, provided by Google Maps JavaScript API, and seamlessly display the markers as the map is moved.

GameofThrones|D3 (D3JS, ReactJS, ReduxJS, ExpressJS, NodeJS)

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

Data exploration focusing on the relationships between Game of Thrones' characters through D3.js visualization techniques

- Created an interactive network visualization by integrating D3.js' Force Layout library and incorporating Zoom and Pan features for an enhanced usability and more intuitive UX.
- Built a co-occurrence 2-D matrix and barchart by implementing D3.js' Axis component for all graph axis and utilized the axis' Linear and Ordinal Scaling, CSS media queries, and Flexbox layout to achieve a responsive design.