

# Andy Ruan

SOFTWARE ENGINEER

Vancouver, BC, Canada

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## Skills

**Languages** TypeScript, JavaScript, C#, Java, HTML + CSS, SQL, Solr, Python  
**Frameworks** Angular, .NET (5+, Core, Framework), Redux, Jest, Protractor  
**Tools** Git, NodeJS, IIS, AWS (S3, SQS, CloudFront, EC2), Jenkins, Ansible

## Work Experience

### Dodge Construction Network

Vancouver, Canada

SOFTWARE ENGINEER · ANGULAR(TYPESCRIPT), .NET(C#)

Feb. 2020 - Jan. 2024

- Spearheaded front-end architecture of construction data platform to support 12+ developers over 3 teams in writing clean and efficient code, improving productivity and reducing feature development time.
- Implemented major parts of an automated email scraping system, utilizing asynchronous processes such as schedulers and lambdas to aggregate and store data.
- Overhauled our HTML to PDF service by replacing previous rendering library with in-house solution, improving export times and reducing compute resource cost.
- Designed, developed, and documented APIs utilizing .NET framework to communicate with various back-end services and facilitate features on the front-end.
- Refined stories and planned sprints as part of a scrum team, contributing to consistency between upcoming features and existing requirements.
- Enhanced overall security of our web applications by implementing content security policy and investigating avenues for injection attacks.
- Rebuilt legacy ASP.NET MVC product with Angular front-end to reduce server load and decrease client-application load times.
- Isolated business logic from MVC-controllers and exposed them under new RESTful APIs to better support client-sided web development.
- Upgraded CI/CD development process with Git hooks and SonarQube to maintain passing unit tests, consistent branch names and commit messages, and perform code quality analysis automatically.
- Mentored juniors and contractor teams to identify code smells and design pitfalls in order to maintain best practices and reduce technical debt.

JUNIOR QUALITY ENGINEER · PROTRACTOR(TYPESCRIPT), KARATE(JAVA)

Nov. 2018 - Dec. 2019

- Automated end-to-end and API test cases with Protractor in TypeScript and Karate in Java to drastically speed up regression analysis.
- Refactored larger portions of automation code base written by multiple team members to reduce code duplication and increase maintainability.
- Performed root cause analysis on defects by tracing application dataflow, enabling more detailed logging and reducing the debugging effort on developers.
- Designed efficient test cases based on user stories and requirements to create a streamlined and effective acceptance testing environment.
- Managed, mentored, and performed test case and automation code reviews for our QA team to lead our software test lifecycle.
- Participated in progress meetings to ensure well integrated processes between development and QA teams.

## Projects

JACQUIETATTOOS.COM · NEXTJS(REACT, TYPESCRIPT, NODE)

May. 2024 - Current

- Developed a tattooing portfolio website used to display work and initiate bookings.
- Integrated Instagram Basic API to fetch and display work as part of albums in a gallery.
- Implemented reCAPTCHA and form validation in order to reduce likelihood of booking form submission abuse.
- Utilized various Google Cloud services to display maps, log booking form submissions, upload reference pictures, and fetch items for purchase.
- Created API endpoints to incorporate scheduling infrastructure webhooks and update availability of purchasable items.

## Volunteer Experience

### Penguin Robotics

Vancouver, Canada

TOURNAMENT OPERATIONS

Sept. 2018 - Current

- Facilitated various VEX Robotics tournaments across Metro Vancouver by coordinating IT setup and control efforts.
- Performed on-the-spot troubleshooting of technical defects to enable smooth tournament operations.

## Education

### University of British Columbia

Vancouver, Canada

BACHELOR OF APPLIED SCIENCE WITH DISTINCTION IN COMPUTER ENGINEERING

Sept. 2014 - May 2018