

## Resume

Senior Full-Stack JS Developer

## Roman Sanine

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## EXPERTISE

- Excel at solving problems using cross-domain methodologies.
- Node.js, ES5/ES6, TypeScript, C, PHP, Java, Python, Go
- Docker container orchestration and deployment.
- Database interfacing, ORM, schema architecture.
- GCP and AWS cloud platforms.
- Vue.js and other reactive UI frameworks.
- Video compression algorithms.
- Verification, analysis, process design and automation.
- Genetic algorithms, image processing.
- Highly self-motivated, curious, and largely self-taught.
- Write clean, structured, maintainable code.
- High attention to detail, especially for usability and design.
- Canadian citizen eligible to work in the US under TN-1 visa.

## EXPERIENCE

## Verification Engineer

2018/Nov – 2019/Jun · 8 months · Contract

- Implemented C++ extensions to open-source tools to enable greater visibility for debugging and development.
- Implemented high-coverage test automation and video quality-assessment tools.
- Implemented a data-mining framework to measure the video-quality impact of encoding algorithms.
- Debugged video compression algorithms within a hardware architecture based on high-level-synthesis.

## NGCodec Inc.

Waterloo, Canada

<https://www.ngcodec.com>

USA based company that develops hardware video compression solutions for the cloud. NGCodec was acquired by Xilinx Inc. in July 2019.

## Design Engineer; Technical Sales

2014/Aug – 2018/Jul · 4 years

- Implemented full-stack internal web-application that modelled the internal sales and product development pipeline.
- Designed, implemented, and debugged hardware and software components for Xilinx and Intel FPGAs and SoCs.
- Negotiated with third-party IP vendors, integrated third-party IP into hardware products.
- Improved methodologies, and automated quality testing, verification, and dev-ops processes with custom-made tools.
- Provided sales and technical support assistance to new customers.
- Gave presentations and technical demos at 5 trade-shows in 3 countries.

## SOC Technologies Inc.

Waterloo, Canada

<https://www.soctechnologies.com>

Canadian company that develops MPEG video codec IP and hardware products.

## Product Designer, Mobile

2014/Aug – 2018/Jul · 4 years · Co-op

- Designed mobile products that met product requirements within the constraints of APIs available.
- Led usability studies with end-users.

## D2L

Waterloo, Canada

<https://www.d2l.com>

Global cloud software company, learning solutions.

## Test Engineer, Software Verification/Validation

2011/Jan – 2013/Jan · 2 years · Co-op

- Automated aspects of manual (physical) product tests.

## BlackBerry Inc.

Waterloo, Canada

<https://www.blackberry.com>

Canadian multinational company, developer of smartphones, and tablets.

## EDUCATION

### Honours BBA & BSc Double-Degree with Co-Op

2009/Sep – 2014/Aug · 5 years

- **B.Sc.**, Computing and Computer Electronics
- **BBA**, Business Administration

### Wilfrid Laurier University

Waterloo, Canada

Located in Waterloo and Brantford, Ontario, specializing in business, science, and arts.

## EXHIBITIONS

**NAB** *Las Vegas, USA*      ◦ 2014  
National Association of Broadcasters      ◦ 2017

**IBC** *Amsterdam, Netherlands*      ◦ 2016  
International Broadcasting Convention

**ET** *Yokohama, Japan*      ◦ 2016  
Embedded Technology      ◦ 2017

## OTHER INITIATIVES

### Node.js plays GTAV Machine Vision

Inspired by *Python plays GTAV* by sentdex. Applies existing and novel tensorflow.js models to autonomous vehicle control using streaming video data.

### Findrise Open-ERP Enterprise Software

ERP software designed to facilitate productive crowd-collaboration among strangers. An exercise in architecture of scalable, high-availability web-services.

### Browser-based multiplayer online economics game. Simulations

An exercise in designing real-time interactive multi-user experiences, scalable web services, and modelling economics of hunter-gatherer society.

## REFERENCES

[Pavel Novotny](#) *CTO and VP of Algorithms, NGCodec Inc.*  
Immediate Superior

Contact info available on request

[Don Dattani](#) *Hardware Design Lead, NGCodec Inc.*  
Immediate Superior

Contact info available on request

[Gabriel Carle](#) *Senior Design Engineer, SOC Technologies Inc.*  
Peer

Contact info available on request

[Maria Fedorov](#) *Project Manager, SOC Technologies Inc.*  
Immediate Superior

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