

JEREMIAH JACOBSON

Senior Software Development Engineer

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📍 Corning, New York

🌐 <https://www.jerejacobson.com/>

Experience

Senior Software Development Engineer

Corning Inc. - Gorilla Glass

📅 2020 – 2022

📍 Corning, New York / China

- Responsible for training new team members and bringing them up to speed in glass science and our hardware/software stack.
- Programming large-scale and hardened software deployments that are repeatable, reliable, informational, and intuitive for engineers and factory workers.
- Represent Corning Inc. while working closely on consumer electronic solutions with teams from Apple, Samsung, Google, Microsoft, Oppo, and others.

Software Development Engineer

Corning Inc. - Gorilla Glass

📅 2019 – 2020

📍 Corning, New York / China

- Make the software secure from reverse engineering efforts and protect the proprietary IP.
- Continued implementing new software features and hardware integrations that the external customers requested.
- Created and developed quality control hardware systems and peripherals with a small team of engineers and scientists.

Metrology Engineer

Corning Inc. - Gorilla Glass

📅 2017 – 2019

📍 Corning, New York / China

- Wrote glass metrology software used in Manufacturing environments to quality control Gorilla Glass.
- In this role, I implemented new features and optimized the speed of the software, **doubling** the factory measurement throughput.
- Worked closely with a global team to provide robust software solutions and support to our gorilla glass customers.

Knowledge

Languages and Frameworks I actively use

C#, .Net 4-6, WPF/MVVM, LiteDB.

Flutter Framework and Dart. (iOS/Android/Web/Desktop)

HTML, CSS, Javascript

Currently Learning

Mean stack | MongoDB, Express.js, Angular, Node.js

Things I have used in the past

Python, Javascript, C, PHP, Ruby, VbScript, Powershell, Java, BASH, Lua

Education / Courses

AAS Computer Information Science.

Corning Community College

📅 2014 - 2016

Highlight Projects

Supporting Glass Development

- Point of contact for Application Engineers in Asia and provide solutions to hardware/software issues to ensure that customer phone models can release on time.
- Made significant contributions to the transfer and manufacturing acceptance of Quality Control Techniques and Software to external finishers for Ceramic Shield, Gorilla Glass 5, 6, Victus, DX/DX+, SR+, and NDA projects.
- Developed software that measures millions of glass displays per day in the US, China, Vietnam, South Korea, and India. This equates to ~ **3 billion** consumer devices since 2017.

Software and Hardware Automation

- Wrote a modular framework to add new hardware components and an interface for 3rd party automation.
- Automation modularity enabled the software to measure glass samples, laser engrave QR codes into the parts, push data into a database, and then bin the glass parts in a pass/fail criteria.

Software Security

- Wrote and implemented security features to prevent reverse engineering and misuse of Corning's proprietary software and algorithms.
- Software features include obfuscation, debugger detection, parent process detection, Virtual Machine detection, Reverse Engineering software detection, Memory Manipulation detection, and Self-destructing the application in cases of malicious intent.

DireByte Software

- During the pandemic I co-founded a software development group that creates collective side projects in our spare time. www.direbyte.com

Awards/Patents

- 2018 - 2022 I have received thirty achievement awards with monetary compensation for work excellence and direct impact to Corning profits. Here are some of the [highlighted achievements](#).
- Andrews, R. C., Bouzi, P. M., Guo, Z., Immerman, J., **Jacobson, J. R.**, Moon, M. D., ... & Xipupu, W. A. N. G. (2021). U.S. Patent Application No. 17/104,154. [U.S. Patent Application No. 17/104,154](#).
- Andrews, R. C., Bouzi, P. M., Furnas, W. J., **Jacobson, J. R.**, Newcomer, G. A., Olson, E. L., ... & Wetmore, N. D. (2021). [U.S. Patent No. 11,105,612](#). Washington, DC: U.S. Patent and Trademark Office.