Nir Jacobson
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Nir Jacobson **New York, NY**
Designer and Engineer
April 2023 – present

Developed and published music composition software for FM synthesis models developed by Yamaha, making their systems programmable using modern interfaces
(C/C++, Qt)
Designed and implemented hand-held music players that use Yamaha synthesis hardware, compatible with the composition software mentioned as well as a catalog of existing music
(AVR ATmega, C, Fusion 360)
Developed a handheld computer prototype based on the Raspberry Pi 5 Compute Module, designed to be an all-purpose tool in both industrial and entertainment settings
(AVR ATmega, Raspberry Pi, C/C++, Fusion 360, Gentoo Linux)
Developed a cross-platform Phong-based 3D animation renderer for COLLADA files, where COLLADA is an XML-based 3D interchange format developed by Sony and now managed by the Khronos Group
(C/C++, Qt, OpenGL, Vulkan, XML, COLLADA)

MongoDB **New York, NY**
Software Engineer 3
November 2018 – April 2023

Full-stack developer on MongoDB Atlas (Cloud DBaaS)
(Golang, Java, React, TypeScript, Node.js)
Designed and implemented a log ingestion system to reveal patterns in mongoDB feature usage and system behavior to teams working on performance optimizations
(Golang, Java, React, TypeScript, Node.js)
Developed a system for performing automated fleet maintenance allowing many employees to safely introduce model and API changes using a self-service tool
(Java, React, TypeScript, Node.js)
Led projects to leverage new cloud provider services such as new availability zones and more performant disk types
(AWS, GCP, Azure, Java)
Implemented frontend UI components by matching Figma and InDesign documents precisely
(React, TypeScript, Node.js)

DNV GL **Berkeley, CA**
Software Developer
May 2014 – March 2017

Developed data acquisition software for PV module (solar panel) performance characterizations, where acquired data was used for later reporting on and certification of PV module manufacturers
(LabVIEW, Java, C#)
Developed a web application for performance-data storage and access, which automated collecting large datasets into a specific spreadsheet format and directory structure necessary for manual components of report generation
(MEAN stack)
Developed scripts to automate tasks in statistical analysis and report generation, reducing multi-day workflows to several hours' time
(Microsoft Excel, VBA)

PV Evolution Labs **Berkeley, CA**
Technical Writer
December 2012 – May 2014

Authored engineering reports on characterizations of solar equipment, which were used to certify and rank solar panel manufacturers
(Microsoft Office)
Developed data acquisition and reporting procedures to reduce report generation time and better track accountability of acquired data

Computer Science, B.S.
University of California, Santa Cruz
September 2015 – June 2018

Lower-division undergraduate requirements were met at Diablo Valley College (DVC) and the Peralta colleges in the East Bay.

Website
https://www.nirjacobson.com

GitHub
https://github.com/nirjacobson