

SOFTWARE ENGINEER

# NATHAN CREWS

<https://apps.nathancrews.com>

## EXPERIENCE

December 2023 – Present

### SENIOR SOFTWARE ENGINEER

**Projects:** <https://apps.nathancrews.com>

Create and customize open source/commercial software solutions.

JavaScript, HTML/CSS, HTMX, NodeJS image mapping web applications (frontend and backend). C++/C/C#, STL, OpenGL, GLSL, Open3D, LASlib (LIDAR point cloud data), 3D visualization of various formats, image manipulation, multi-threading, desktop applications and Windows shell extensions.

Jan 2014-Nov 2023

### TEAM LEAD, SENIOR SOFTWARE ENGINEER

#### Carlson Software

Hydrology Engineer: Provided C++/Blueprints game backend and UI for engineering hydrology elements for a new learning game based on Unreal Engine.

Precision 3D Team: Lead software development a new 3D CAD platform for civil engineers and land surveyors. Key features include drone photogrammetric/LIDAR point cloud processing, design surface modeling and data import export.

Jan 2012-Jul 2015

### SENIOR SOFTWARE ENGINEER

#### Central Maine Power, Itron

Primary responsibilities focused on creating custom high performance C++ and C# .NET distributed computing enterprise solutions for electric and water utilities. Windows Server Enterprise environment using Oracle and SQL Server databases with C# and ASP.NET application code. Strong debugging and performance optimization skills.

### SENIOR SOFTWARE ENGINEER

#### Logos Technologies

Military Drone Video Visualization: Created 3D NASA World Wind based client/server TCP/IP socket H.264 streaming video playback software using CUDA accelerated H.264 encoding Linux server to a Windows 3D platform client using C++, C and Java.

### SENIOR PRINCIPLE SOFTWARE ENGINEER

#### Autodesk

Extensive 2D and 3D graphics experience using OpenGL, AutoCAD, Revit and 3D Studio MAX. Projects: Green Building Studio Photovoltaic Energy

## CONTACT

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<https://github.com/nathancrews>

## OBJECTIVE

Continued software application development applying my diverse software development experience using C, C++, C#, Javascript, and HTML/CSS, on a wide variety of technologies and platforms including API development to new projects.

## SKILLS

**Languages:** C++, C#, javascript, HTML/CSS, and Unreal Engine Blueprints

**Development Tools:** Git, Perforce, Jenkins, MS Visual Studio, VS Code, Qt Creator, cmake, gcc, g++

**APIs:** .NET, Win32, MFC, STL, Intel TBB, OpenMP, Open3D, OpenCV, Unreal Engine, Point Cloud Library, PDAL, GDAL, LASTools, HTML

**Platforms:** Windows, Windows Server, Linux

## EDUCATION

A.S. PHYSICAL SCIENCES, Cum Laude  
Gaston College, Gastonia, NC

Analysis. AutoCAD Civil 3D, gbXML, OpenXPS and LandXML.org, ECMA-388 OpenXPS, LandXML.org, OGC.org standards participation.