

# Nicholas Colvin

Durham, NC  
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## EDUCATION

<b>University of Texas at Dallas</b> Master of Science in Computer Science	Richardson, TX December 2023
<b>University of North Carolina at Chapel Hill</b> Bachelor of Science in Computer Science	Chapel Hill, NC May 2020

## WORK EXPERIENCE

<b>Self-Employed</b> <i>Software Developer</i>	Durham, NC fall 2021 - present
<ul style="list-style-type: none"><li>Continued software development work for 4th Vector Technologies after leaving the full-time position to pursue school</li><li>Devised a user-friendly setup tool for Cognex VisionPro scripts, enabling clients to independently configure new products in minutes instead of relying on external assistance, vastly improving efficiency and client satisfaction</li><li>Created a support chat interface between 4VT and clients via the Slack API, significantly reducing response times</li></ul>	
<b>4th Vector Technologies</b> <i>Vision Systems Engineer</i>	Apex, NC summer 2020 - fall 2021
<ul style="list-style-type: none"><li>Built, installed, maintained, and supported software and hardware for ten industrial machine vision systems</li><li>Designed HMI applications in C# and deployed them to industrial PCs that serve as central control hubs for the systems</li><li>Developed custom image processing algorithms using a variety of CPU/GPU programming and commercial software</li><li>Trained a deep learning model to classify product anomalies and achieved over 90% precision and recall</li><li>Revamped the company website, integrating Perch CMS, Google Analytics, and HubSpot to improve SEO scores, increase traffic, and enhance lead generation and client engagement</li><li>Communicated with clients to identify needs and translate into tailored software features</li></ul>	
<b>Blue Trading Systems</b> <i>Programming Intern</i>	Chapel Hill, NC summer 2018 - fall 2019
<ul style="list-style-type: none"><li>Produced a single-page application for internal use in F# to display software version numbers running on virtual machines along with system and network information</li><li>Deployed a Python web application within a Docker container enabling clients to manage their software instance and plugins, view and filter a live feed of logs, and look up FIX messages</li></ul>	
<b>Lenovo</b> <i>Software Engineering Intern</i>	Morrisville, NC summer 2017
<ul style="list-style-type: none"><li>Applied the MVC model in C# to gather data for the homepage of a Windows application</li><li>Wrote unit, integration, and web tests for accessing cloud content within the model</li><li>Learned to work in an agile environment, use project tracking and content management software, and relay progress in daily team meetings</li></ul>	

## PROJECT EXPERIENCE

<b>Predicting NFL Scores using Sportsbook Odds</b>	fall 2022
<ul style="list-style-type: none"><li>Implemented a multilayer perceptron in Python and compared performance with an MLPRegressor from scikit-learn</li><li>Organized a database found online with opening and closing odds from every NFL game since 2007</li><li>Evaluated the significance of features by removing them from the dataset and comparing summary statistics over ten instances of each model</li></ul>	
<b>OdderJobs</b>	fall 2019
<ul style="list-style-type: none"><li>Led the development of a job board to find or post local odd jobs as a group project using JavaScript and Bulma</li><li>Provided separate public, private, and user data stores to secure and organize data</li></ul>	

## SKILLS

*Programming Languages:* C#, Python, Java, JavaScript, C, F#, PHP  
*Libraries, Frameworks, and Tools:* .NET, Azure DevOps, Bulma, Confluence, Django, Flask, Git, JIRA, NumPy, PyTorch