

# Nicholas J. Morris

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## Education

The Ohio State University - *Columbus, OH*  
B.S. Computer Science & Engineering

GPA: 3.72 (Magna Cum Laude)  
Graduation: May 2020

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## Skills

- **Languages:** Java, Python, Javascript, C++, C#, C, Matlab, Scala, SQL.
- **Frameworks/Services:** Android, Flask, Django, Firebase, React, AWS, Scikit-Learn, Selenium, jQuery.
- **Relevant Coursework:** Data Structures & Algorithms, Networking, Information Security, Mobile App Development, Database Systems, Introduction to AI, Principles of Programming (compilers/grammars).
- **Version Control:** Working knowledge of version control systems (Git, Subversion, TFS).

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## Experience

### Capital One Financial

(Summer 2019)

*Software Engineering Intern - CreditWise Team*

*McLean, Virginia*

- Integrated open source data analytics tool within an internal network primarily using AWS and NGINX.
- Setup one click deployment architecture using Shell and Amazon Lambda, EC2, S3, and RDS to easily rehydrate an EC2 instance and migrate additional features and metadata with minimal intervention.
- Added SSO authentication via OAuth2.0 protocol to a Python Flask application for easy user login.
- Helped develop a new ETL pipeline using PySpark and Databricks to feed data from S3 to Snowflake.

### NextEra Energy, Inc.

(Summer 2018)

*Data Engineering Intern - Data Systems Team*

*Juno Beach, FL*

- Developed analytics UI driven by Python and an internal REST API to monitor the health of our servers.
- Wrote a Python script using Jupyter Notebook that leveraged natural language processing (Scikit-Learn) to automate the verification of predictive work orders. Ultimately, achieved 95% accuracy.
- Designed Python script that provided YTD analysis of newly developed AI predictive models.
- Created Python server analysis tool that helped remove time wasted on confirming daily backups.

### The Ohio State University

(Jan 2018 - May 2019)

*Teaching Assistant - College of Engineering*

*Columbus, OH*

- Supported senior instructor in intro to object-oriented programming courses (Java) for three semesters.
- Helped lead lab sessions (30-50 students); assisted with coursework and coding problems during lab.
- Held office hours to guide students through coding projects and issues with homework.

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## Projects

### Point-Prognostics

(Spring 2020)

- Worked with a startup to build a web app driven by a prognostics algorithm that calculated statistical likelihood of events in a dynamic system. Interactive results displayed with chart.js plots and jQuery.
- Developed primarily using Django, JS, & Bootstrap. Backend uses Matlab & their SDK dev server.
- Created extensive unit and integration tests, built into Github workflow. Powered by Selenium & QUnit.

### City-Matcher

(Spring 2020)

- Android app using Firebase Authentication and real-time database, behavioral/fragment design pattern, and device GPS sensor to match a user's personality and preferences to their perfect big city.

### Network Scanner

(Spring 2020)

- Helped design a Python tool to evaluate the topology of a network. Features include: privileged and unprivileged TCP/UDP scans, active OS detection, service detection, syn flood attack module, & more.

### Mega Man Game

(Spring 2019)

- Replica of original 2D Mega Man using state/behavioral design patterns, built with Monogame in C#.