

# Nicholas Payne

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## EDUCATION

### Northeastern University Boston, MA

May 2022 | GPA: 3.85/4.0

Candidate for Bachelor of Science

Mathematics

Minors:

Data Science

Electrical Engineering

Mechanical Engineering

### Salem High School Salem, NH

June 2017

High School Diploma

## COURSEWORK

Dynamical Systems

Real Analysis

Applied Mathematics Capstone

Fundamentals of CS 1 & 2

Data Collection, Integration, and Analysis

Database Design

Large Scale Storage & Retrieval

Statics

Thermodynamics

## SKILLS

### Proficient in:

VBA • R • SQL

Microsoft Office (Excel - VLOOKUP, Pivot  
Tables, Power Pivot)

### Working Knowledge of:

Mathematica • SAS • Matlab

Racket • Python • Java •  $\LaTeX$

## INTERESTS

Reading science fiction • Hiking

Playing saxophone • Chess

## LINKS

[nicholaspayne.net](https://nicholaspayne.net)

[github.com/nipayne](https://github.com/nipayne)

[linkedin.com/in/ni-payne](https://linkedin.com/in/ni-payne)

## WORK EXPERIENCE

### HOMESITE INSURANCE

Actuarial Analyst Co-op

July 2019 - December 2019 | Boston, MA

- Automated and developed various templates to increase efficiency, including a web dashboard that allowed for users to effectively summarize and visualize loss performance metrics.
- Proposed, developed, and presented to upper level management four different rate level adjustments for various insurance products based on analysis of historical state performance.
- Prepared and presented analytical summaries to several managers, which focused on highlighting the performance and discussing potential strategies of various states.

### NORTHEASTERN UNIVERSITY MATHEMATICS DEPARTMENT

Undergraduate Mathematics Tutor

July 2018 - Present | Boston, MA

- Explain and review mathematical concepts for a variety of courses, including Dynamical Systems & Differential Geometry, in order to help students better understand the material and to improve their performance.
- Assist with improving students' study habits and connecting students with various campus resources.

### SALEM SCHOOL DISTRICT

Substitute Teacher

December 2017 - Present | Salem, NH

- Teach K-8 students in all subject areas.

## COMMUNITY INVOLVEMENT

### SQUASHBUSTERS

High School Academic Tutor

September 2017 - Present | Boston, MA

- Mentor high school students and assisted with homework assignments and projects in a variety of disciplines, either one-on-one or in small group settings.
- Prepare students for the college application process by reviewing and providing feedback for essays, resumes, and SAT & ACT prep.

### FIRST ROBOTICS COMPETITION TEAM 6324

Mentor

September 2017 - December 2019 | Salem, NH

- Supervised a team of 30 high school students throughout a six-week design & build phase followed by a 2 month competition season.
- Facilitated sessions designed to foster students' strategic planning and leadership skills.
- Guided sub-team composed of 6 students in designing and implementing the electrical subsystem of a 120 pound robot.

### FIRST ROBOTICS COMPETITION TEAM 6324

Student

September 2016 - May 2017 | Salem, NH

- Elected student coach and electrical sub-team lead of a 20 student organization
- Advanced to the 2017 FRC World Championships.