

# Alexander Rus

anrus@wpi.edu | 617-797-4560 | Newton, MA | <https://www.linkedin.com/in/alex-rus>

## EDUCATION

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**Worcester Polytechnic Institute, Department of Computer Science** | Worcester, Massachusetts

August 2016 – May 2020

- B.S. in Computer Science, Minors in Data Science and Business
- Cumulative GPA: 3.4
- Relevant Coursework: Data Mining and Knowledge Discovery in Databases, Human Computer Interaction, Webware Computational Technology for Network Information Systems, Microeconomics, Software Engineering, Statistics

**Newton North High School** | Newton, Massachusetts

September 2012 – July 2016

- AP Biology, AP Calculus AB, AP Chemistry, AP European History, AP English Literature, AP U.S History

## RECENT WORK EXPERIENCE

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**GreenChoice PBC** | Waltham, Massachusetts

May 2019 – August 2019

*Software Engineering, Data Scientist*

- Designed back end systems of the GreenChoice mobile application that provides consumers insight into food options when grocery shopping
- Overhauled the LOP (Level of Processing) formula and algorithm to determine an appropriate processing score and description
- Extensively used natural language processing in Pandas dataframes; information had to be parsed from over 55,000 individual products regarding ingredients, descriptions, and titles taken from the SQL database
- Worked closely with management to market the GreenChoice application at Greentown Labs and MassChallenge to seek seed funding from capitol investment groups

**iD Tech Camps at MIT Campus** | Cambridge, Massachusetts

May 2018 – August 2018

*Lead Instructor, Tech Coordinator*

- Instructed 100+ students between the ages of 13-18 in intermediate to advanced programming topics
- Topic covered: Python, C++, Raspberry Pi Computer Architecture, Java, Autodesk Maya, Cybersecurity, and Cryptography
- Oversaw and managed four individual instructors and completed administrative and technical tasks

## PROJECTS

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**Mitigating the Impact of Fake News URL Recommender System** | Worcester, Massachusetts

August 2019 – present

*Major Qualifying Project, WPI*

- Utilizing a user-based system, item-based system, and matrix factorization system, we calculate the probability that a user will visit a specific news URL
- Implemented the item-based and user-based systems in a Numpy matrix that calculated the cosine similarity; matrix factorization requires the creation of two shallow matrixes that use machine learning from the spotlight Pytorch library
- Implemented React Web Application built using M.E.R.N stack, hosted on Heroku

**TTB COLA Application Overhaul** | Worcester, Massachusetts

July 2015 – November 2015

- Collaborated with 11 other software engineers to create an online alcohol label submission form for manufactures, and a form processing workflow application for US Trade Bureau
- Written in Java we used Agile development methodologies and SCRUM to improve

**Improving Urban Planning and Inclusivity in Woodstock** | Cape Town, South Africa

October 2018 – December 2018

*Interactive Qualifying Project, WPI*

- Studied abroad in Cape Town working with theMAAK architecture firm to study and improve public space inclusivity and usage in the neighborhood of Woodstock struggling to maintain equality in post-Apartheid South Africa

## LEADERSHIP & OTHER ACTIVITIES

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**WPI Varsity Track and Field Team** | Worcester, Massachusetts

August 2016 – Present

*Team Captain 2019-2020 seasons*

- Three-time NCAA DIII National Athlete, set 7 WPI School records
- Named the 2018 NEWMAC Athlete of the Year at the NEWMAC Conference Championships

**Eagle Scout, Boy Scouts of America** | Newton, Massachusetts

2011 – June 2016

*Assistant Scout Master, Senior Patrol Leader*

- Attained the rank of Eagle Scout after refurbishing the Sawmill Brook Conservation Area in coordination with the Newton Conservation Committee

**Dean's List and Scholarship** | Worcester, Massachusetts

August 2016 – present

- Dean's List recipient, WPI Global Scholarship Recipient, Fulbright Scholarship Recipient

## SKILLS

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**Computer Languages:** Python (Pandas, Numpy, scikit-learn, Hadoop), Java, C/C++, JavaScript, CSS, HTML, SQL, React

**Other Skills:** AWS, Heroku, Node.js, Git, Bash, Adobe Photoshop, Autodesk Maya, Tableau, Visual Studio Code,