

# VALA ZEINALI

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## EDUCATION

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**Masters of Science in Health Data Science (QBS)**

*Fall 2020 - Fall 2021*

Dartmouth College, Hanover, New Hampshire.

**Bachelor of Science in Computer Science**

*Fall 2017 - Spring 2020*

**Minor in Applied Mathematics**

Kent State University, Kent, Ohio. GPA : 3.6

## TOOLS

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**Languages** Python, SQL, R Studio, L<sup>A</sup>T<sub>E</sub>X.

## RESEARCH POSITIONS

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**Quantitative Analyst Intern, Boyd Watterson Asset Management**

*Summer 2020*

Building mathematical models to identify profitable long/short signals for fixed income securities, analyzing and adjusting model performance, and communicating results to senior quants and VP's.

**Research Assistant (REU) at Carnegie Mellon University**

*Summer 2019*

Supervision under Dr. Herbsleb, Dr. Bogart, and Dr. Klug. We raised the question: what helps new users stick around for their second year? Will completing issues labeled with E-Mentor maintain user activity after their matriculation in the Rust compiler repository? We mined nine years worth of github data and ran multi-linear regression, logistic regression, time-series analysis, and machine learning algorithms to find out the best predictors for second year survival. The motivation of the research is to find variables that help retain users in open source software ecosystems after their matriculation.

**Undergraduate Research Assistant**

*Fall 2018 - Spring 2019*

Assisted Gokarna Sharma, Ph.D. at Kent State with artificial intelligence research. Created new algorithm to produce closer approximation in an online tethered robot to cover area in a planar environment with unknown obstacles. Published Paper.

**Quantitative Researcher**

*Fall 2018 - Spring 2019*

AlgoTech Financial is a startup company that specializes in algorithmic trading strategies that use machine learning in the cryptocurrency markets. I helped implement predictive mathematical models for different cryptocurrencies. In addition, I helped with the algorithmic development of the high frequency and machine learning strategies. Lastly, I built automated software to do descriptive and inferential statistical on PnL percentages.

## PUBLICATIONS

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[1] Gokarna Sharma, Pavan Poudel, Ayan Dutta, Vala Zeinali, Tala Talaei Khoei, and Jong-Hoon Kim. A 2-Approximation Algorithm for the Online Tethered Coverage Problem. The 2019 Robotics: Science and Systems Conference (RSS), Freiburg, Germany, 9 pages, June 2019.

## TEACHING

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**Course Lead Tutor**

*Fall 2019 - Spring 2020*

Responsible for tutoring other tutors at Kent States Academic Center on new methods of tutoring mathematics to students.

**Undergraduate Teaching Assistant**

*Fall 2018 - Spring 2020*

Served as a teaching assistant for 27 credits (7 classes) of introductory level probability & statistics (5), calculus based probability & statistics (1), and business calculus (1).

## Mathematics Tutor

*Spring 2018 - Spring 2020*

Employed through the Academic Success Center. Help students by taking complicated topics and finding ways to break them down in a way that makes the most sense to the student. Our goal is to foster independent learning.

## LEADERSHIP POSITIONS

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### Student Body President

*Spring 2019 - Spring 2020*

Student government. Campaigned and elected by undergraduate student body of Kent State University. Currently working with higher administration to scale up our initiative of providing free menstrual products at Kent State. Help develop survey to gather both quantitative and qualitative data on menstruation. The data was analyzed and presented in pitch-book form to higher administration to secure more funding for our Period Project initiative. Was recognized in Wall Street Journal.

### Presidential Search Committee Member

*Fall 2018 - Spring 2019*

Selected by Kent State upper administration and Board of Trustees to represent the entire undergraduate student body to help elect the 13th university president. Responsible for gathering students concerns and communicating them with the committee.

### Director of Business & Finance

*Spring 2018 - Spring 2019*

Student government. Campaigned and elected by the undergraduate student body. Handled a 7 figure budget used for events for the student body, as well as, funding students to go to conferences. Created UI and database to store allocation applications digitally, opposed to previous paper method. Helped launch and fund free menstrual products for the student body in bathrooms

## HONORS/AWARDS

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**Student Body President Stipend** - \$6,424/year

*Spring 2019 - Spring 2020*

**Director of Business & Finance Stipend** - \$4,424/year

*Spring 2018 - Spring 2019*

**Choose Ohio First Scholarship** - \$7,368/year

*Fall 2017 - Spring 2020*

Receiving significant funding to present research annually under faculty supervision, while pursuing a CS degree.

**Trustee Scholarship** - \$3,750/year

*Fall 2017 - Spring 2020*

Merit-based yearly tuition scholarship offered to talented high school students.

## HOBBIES

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Bass fishing, playing any instrument with strings, kombucha, aquaponics, yoga.