## Vala Zeinali

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## **Education**

• Kent State University, Kent, Ohio

Fall 2017 - Spring 2020

Bachelor of Science in Computer Science | GPA: 3.6 | Minor in Applied Mathematics President's list, Dean's list

**Relevant Coursework/Skills:** AP Statistics, AP Computer Science, AP Physics I, CSII Data Structures/Abstractions, Algorithms, Calculus II, Calculus III, Basic Probability & Statistics, Prob. Theory & App., Linear Algebra, Microeconomics, Structures of Programming Languages, Software Engineering, Computer Communication Networks, Big Data Analytics, & Database System Design. Python, R, MySQL, Microsoft Office.

## **Employment/Research**

- Summer Research Assistant, Carnegie Mellon University, Pittsburgh, Pennsylvania Spring 2019 Present Supervision under Dr. Herbsleb, Dr. Bogart, and Dr. Klug. Our research digs deeper to see how new and old contributors in the Rust compiler team on github evolve. We then raise the question: what helps new users stick around for their second year? Will completing issues with "E-Easy" labels help new users stay contributing after their matriculation in the Rust compiler repository? We mine nine years worth of github data and run multi-linear regression, logistic regression, time-series analysis, and machine learning algorithms to answer our question. Paper in progress.
- Student Body President, Student Government

  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 pitchbook form to higher administration to secure more funding for our Period Project initiative.
- **Undergraduate Research Assistant-** <u>A 2-Approximation Algorithm for the Online Tethered Coverage Problem</u>
  Assisted Gokarna Sharma, PhD 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, AlgoTech Financial, Zanesville, Ohio

  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.
- Director of Business and Finance, Student Government

  Spring 2018 Spring 2019

  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 and birth control products for the student body in bathrooms.
- Undergraduate Teaching Assistant, Kent, Ohio Fall 2018 Present
  Assisted statistics Professor Vezvaei and Pham with teaching three sections of MATH 10041 Introductory Statistics for the Fall
  2018 semester. Teaching one section of Introductory Statistics and MATH 11012 Intuitive Calculus for Spring 2019.
- **Kent State Mathematics Tutor**, Kent, Ohio

  Spring 2018 Present

  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.
- **Presidential Search Committee Representative**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.
- COF Research- Maximizing Profit at the Local Greenhouse

  Created database for previous plant data, added new data to the database, modeled the data, and found the most profitable produce for the greenhouse to grow to maximize profits. Supply and demand, seed to table time, area optimization, germination success, and profit margin was taken into consideration to select the best produce to grow. Presented in Spring 2018 COF conference at Youngstown State University. My advisor for my research was Mikhail Nesterenko, PhD.
- **Kent State Plant Sale (Volunteer)**Fall 2017 Present

  10 hours a week at the Kent State greenhouse. Helped with planting, trimming, selling, watering, and creating database.