CHIRAG KAUSHIK

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EDUCATION

The Harker School   Expected May 2022
- GPA: 4.58
- Relevant Coursework: AP Calculus BC, AP Chemistry, AP Computer Science (with Data Structures), AP Physics 2, Honors Advanced Topics in Computer Science: Compilers and Interpreters, Honors Advanced Topics in Computer Science: Neural Networks

TECHNICAL SKILLS

Languages: Python, Javascript, C++, Java, C#, HTML/CSS, Vue, MongoDB, SQL
Frameworks: Node.js, Unity, LibGDX, Android
Libraries: Tensorflow/Keras, OpenCV, Kubernetes, Git, Flask
Platforms: Google Cloud, Heroku, Gitlab

EXPERIENCE

Public Source Code | Github
- https://github.com/chiragzq

Neural Networks   Winter 2017 - Spring 2019
- GAN: Generating handwritten digits using a generative adversarial network
- SnakeNet: A neural network that plays snake (average 24 length)
- TicTacToeNet: A neural network that plays TicTacToe (usually draws)
- Titanic: Predicting survivors on the Titanic using information about a person

Scouting App   Winter 2018 - Spring 2020
- Designed and coded a mobile app for data collection on robots during competitions
- Built using Unity (with C#) and designed in Adobe Illustrator
- Separate data transfer and viewing application written in Swift

PCRMobile   Summer 2017
- An android mobile app for accessing PCR, the homework management system utilized by the school
- Supports features such as using multiple accounts, calendar view, list view, marking done assignments, and more

Battle Royale   Spring 2019
- A top-down battle royale game built using JavaFX and socket.io
- Includes crates, trees, bushes, various guns, ammo, armor, and utility items
- Designed, coded, tested, and presented in a period of 3 weeks

Better Breakout   Spring 2018
  - A mobile twist on the classic game of breakout, including explosions and power ups
  - Built using LibGDX and published on the Google Play Store (4.4 stars, 34 ratings)

Lagar.io   Spring 2017
  - A clone of the popular online browser game agar.io, using socket.io

WORK EXPERIENCE

Harker Development Team   2018 - Present
Administrator
  - Student-run volunteer organization that creates software, such as a student payment app, course planning system, and online volunteering portal, that is used by the entire school, including faculty
  - Oversee the broad vision of the organization, making sure deadlines are met, sufficient communication with school administration is maintained, and that the organization's autonomy and members are maintained over the years
  - https://dev.harker.org

FIRST Robotics Competition - Team 1072   2018 - Present
Software Lead
  - Write software that controls the robot during competition to ensure optimal performance
  - Manage of subteam of programmers by delegating tasks to expedite development during a limited build period
  - Review code written by members to maintain a bug-free and readable codebase
Director of Application Development
  - Wrote and maintain our teams website (https://robotics.harker.org), including purchase request, attendance, battery management, blog, and scouting systems
  - Developed a custom app for collecting data and scouting robots during competitions, to assist in selecting other robots when forming alliances

ACHIEVEMENTS

USA Computing Olympiad - Gold Competitor   Fall 2018
  - One of 700 high schoolers competing in the Gold Division

HarkerCTF Fall 2019 Challenge Hunt - First Place   Fall 2019
  - Part of the winning team which solved a collection of cybersecurity challenges in the quickest time

FIRST Robotics Competition   January - October 2019
  - Finalists at Central Valley and Sacramento regional events
  - Quarter finalists at the World Championships in Houston
  - Ranked 3rd and quarter finalists at offseason competition