

Vinay Bhaip

vbhaip01@gmail.com
vinaybhaip.com
github.com/vbhaip

EDUCATION

- **Thomas Jefferson High School for Science and Technology** Alexandria, VA
Computer Systems Research; GPA: 4.474 Sep 2016 – Jun 2020
 - **Relevant Coursework:** AP Computer Science + Data Structures, Artificial Intelligence, Parallel Computing, Web Development, Mobile Development, Computer Vision, AP Physics.

EXPERIENCE

- **HHMI's Janelia Research Campus** Ashburn, VA
Jayaraman Lab Intern Jun 2019 - Present
 - **Behavior Analysis:** Trained machine learning model on extracted features to classify fly gap crossing attempts.
- **Phone2Action** Rosslyn, VA
Civic Tech Engineering Fellow Jun 2018 - Aug 2018
 - **Facebook Messenger Bot:** Expanded on winning HackTJ 2018 Project working on a chatbot to connect users to local politicians using natural language processing.

PROJECTS

- **SeizureSight:** Created one of the first models to predict types of seizures based off electroencephalographic data. Performs a multitaper transformation and achieves 91.24% accuracy on seizure classification.
- **Low Cost Glaucoma Detection:** Created a convolutional neural network to detect the presence of glaucoma in fundus images. Modeled an Android phone app to detect glaucoma, based off results from convolutional neural network.

ACCOMPLISHMENTS

- **2x AIME Qualifier:** Qualified by being in top 5% in nation for American Invitation Mathematics Examination.
- **HackTJ 2019:** Developed parser to turn physical coding blocks into runnable code using Computer Vision. Won Best Design Award.
- **BioCode:** Achieved 2nd place in computer science competition using algorithms to solve problems in Bioinformatics.
- **HackTJ 2017:** Created an online platform teaching students to learn how to code, which incorporated a forum space, a tool that troubleshoots code by scraping data online, and an API for basic programming. Received Overall Best Beginner Application, 3rd place for Palantir Social Impact Award, and top 10 Big Parser API Usage.

LEADERSHIP

- **TJ Machine Learning Club**
Captain, Teaching Coordinator Sep 2018 – Present
 - **Lecturing:** Teach machine learning algorithms in theory and in practice to nearly sixty students every week.
- **TJ Lincoln-Douglas Debate Team**
Captain, Teaching Coordinator Sep 2018 – Present
 - **Lecturing:** Teach debate and philosophies and help manage logistics of club.
 - **Volunteering:** Co-teach thirty students about fundamentals in debate at Eagle Ridge Middle School.
- **Summit For Future Innovators**
Co-founder Oct 2018
 - **Organizing:** Planned and ran day-long event for middle schoolers to engage in interactive workshops in physics, aeronautics, chemistry, robotics, and programming.

PROGRAMMING

- **Languages:** Python, Javascript, Java, C, C++, HTML, CSS.
- **Libraries:** Keras, Scikit-learn, NumPy, OpenCV, OpenMP.
- **Technologies:** Linux, Bash, Git, SQL, Firebase.