

AYUSHMAAN GANOTRA

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22918 North Brown Sq

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EDUCATION

Virginia Tech Computer Science GPA 3.75, Intended Graduation: May 2021

Relevant Coursework: Data Structures (2114), Multivariable Calculus (2204), Linear Algebra (2114)

Thomas Jefferson High School. GPA: 4.15

Relevant Coursework: Artificial Intelligence, Data Structures, Parallel Computing, Mobile and Web App development

SKILLS & ABILITIES

Java, Python, C, Angular, HTML, CSS, JavaScript, AWS, Cloud Tech, MATLAB, SQL, Adobe Suite, Public Speaking, Teaching, and Research

RESEARCH & EXPERIENCE

Software Engineer

Fidelity Investments, Durham NC - May 2019 – Aug 2019

- Working in Fidelity Brokerage Technology to create a chatbot that can analyze and report data about internal auditing data
- Used the Rasa Library to build the **Natural Language Processing (NLP)** component of the chatbot and **Angular** for the UI
- Increase average response time from 15 hours to 2 seconds and achieved 94% accuracy when testing the chatbot's ability to understand questions

Resident Advisor

Virginia Tech, Blacksburg VA - Jan 2019 – Present

- Built a community of students through hall activities in an on campus residence hall occupied by 600 students
- Communicated with other hall staff supervisors to improve campus life and increase focus on safety

Teacher Assistant of Intro to Python

Virginia Tech, Blacksburg VA - Jan 2019 – Present

- Help students in and out of class on projects and other assignments. Learn new teaching techniques that are effective on students and adapt teaching style dependent on the student.

Co-Founder and Teacher

Loudoun Leaders, Ashburn, VA - Aug 2016 – Aug 2018

- Developed and researched **ML** algorithms at Thomas Jefferson to examine teaching CS and education overall to students
- Utilized adapted methods to teach 15 students in person the fundamentals of **Java** and EV3 programming

Neurological Researcher

Thomas Jefferson HS, Alexandria, VA - Sept 2017- Jun 2018

- Analyzed students' brain waves to measure knowledge to replace paper tests.
- Used EEG tests to record brain waves and **Support Vector Machines (SVM)** to analyze the waves. Accuracy of **SVM** algorithm was 80% for Math Tests. Plan to use **Convolutional Neural Networks (CNN)** in the future.

Researcher and Scholar

Virginia Tech, Blacksburg VA - Jun 2017 – Aug 2017

- Researched with Dr. Ed Fox of the CS Department and PhD student, Yinlin Chen.
- Programmed **ML** algorithms and used **NLP** to analyze and categorize YouTube lectures into Virginia Tech's Digital Library

PERSONAL PROJECTS

Full Stack Developer – Abstract Assembly

- Use deep learning techniques to decrease the design process time of CubeSats by over 50%.
- Part of Orion AI Satellite Builder: Creating **firebase services** that allow components to communicate with each other
- Currently working with one company and hope to launch product by Q4 2019

Full Stack Developer – Risktyle

- Used Kahneman-Tversky's survey to analyze 570 individuals. Identified risk characteristics based on gender, age, and literacy.
- Use of **Angular** to make website 2x faster and **firebase** to allow for scalable data storage. **AWS EC2** instance to host website
- Plan on enhancing user's financial decision making and advising users stocks to invest in depending on their risk profile

Front End and ML Developer - Financia

- Budget website, app, and Alexa skill that allows students to keep track of their expenditure
- Used **TensorFlow's API** to create a neural network that analyzes the stock market and determine which stocks to invest in.

ACTIVITIES

Lead Sponsorship Coordinator of VTHacks

Sept 2018 – Present

- Worked on raising over \$26k from 9 companies for the VTHacks hackathon that had over 1000 registrations.
- Managed communication with sponsors, negotiated conditions and funding, and ensured a dynamic and exciting experience for representatives who attended the event

AWARDS

Finacia: HackTJ Best Financial Hack

Campus Marketplace: Hackital Award 1st place category – 2017

PickUp Sports: HackTJ Award for Best use of Alexa – 2017