ARVIND SUBRAMANIAN **913-230-1067 | arvindvs@stanford.edu | Find me at: https://arvindvs.github.io**

EDUCATION

Stanford University **Stanford, CA**
B.S. Computer Science *June 2021*
GPA: 3.79
Relevant Coursework: Machine Learning (in progress), Design and Analysis of Algorithms (in progress), Computer Organization and Systems (C), Programming Abstractions (C++), Introduction to Probability for Computer Scientists, Mathematical Foundations of Computing, Introduction to Combinatorics, Linear Algebra and Multivariable Calculus, Mechanics and Special Relativity

Olathe North High School **Olathe, KS**
Valedictorian | GPA: 4.0 *May 2017*
Relevant Coursework: AP Computer Science A, AP Calculus BC, Multivariable Calculus, Linear Algebra, AP Statistics, AP Physics I, AP Chemistry, AP Biology

EXPERIENCE

Stanford AI Safety Lab **aisafety.stanford.edu**
Research Assistant *June 2018 – present*
- Increased scalability of deep neural network verification techniques
- Worked on memory profiling, optimizing linear equation and constraint generation, and benchmarking tools
- Collaborated with Siemens to implement verification techniques on speech-recognition neural networks to be used in safety-critical environments

Stanford Solar Car **Stanford University**
Software Developer *January 2018 – present*
- In charge of the battery management system code to optimize data manipulation and clean up unused functions
- Debugged C-Language code to improve temperature sensing and reduce vehicle computer glitches
- Learned protocols for real-time telemetry for use in solar car diagnostics

PROJECTS

Neural Network Builder **https://github.com/arvindvs/neural-network-builder**
Developer *August 2018 – present*
- Created framework for constructing, training, and saving a fully-connected neural network using Python and NumPy
- Implemented training methods (backpropagation, batch gradient descent) and inference functions

Stanford Bhangra Website Developer **bhangra.stanford.edu**
Designer & Developer *August 2018 – September 2018*
- Self-taught HTML, CSS, and Javascript to design and build a website for the Stanford Bhangra team
- Used React and Sass to improve animations and styling

Veteran Affairs Medical Center **Kansas City, MO**
Research Assistant *June 2015 – February 2017*
- Conducted cell cultures, exosome extraction, Western Blots, Polymerase Chain Reaction, and other analysis techniques to determine the effect of alcohol on tumorigenesis for 2 years
- Published two review articles and one perspective in scientific journals
- https://www.researchgate.net/profile/Arvind_Subramanian

ACTIVITIES

Stanford Bhangra **Stanford University**
Leadership *October 2017 – present*
- Perform at nation-wide college bhangra dance competitions and locally on Stanford campus
- Leadership duties include dance choreography, website and social media maintenance, and social activity planning

SKILLS

Languages: C++, Python, C, Java, Assembly, HTML5, CSS, Git, Javascript, React, Sass

Additional Skills: abstract data types, recursion, backtracking recursion, run-time analysis, dynamic memory allocation, graph search algorithms, inheritance, and polymorphism

AWARDS & ACCOMPLISHMENTS

·Valedictorian – May '17
·State Science Olympiad Champions – April '17, '16, '15
·AIME Qualifier – March '17, '16, '15, '14, '13
·Gold Presidential Service Award – Mar. '17, '16,'15,'14
·National AP Scholar – August '16
·Junior Virtuoso in Classical Guitar – July '16