

ALEXANDER IVANOV

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EDUCATION

Brown University (GPA: 3.91)

2018-Present

Fremont High School, Sunnyvale CA (Valedictorian)

2014-2018

SKILLS

- Classes: Design/Analysis of Algorithms, Introduction to Robotics, Operating Systems, Intro to Computer Systems, Artificial Intelligence, Deep Learning, Computer Vision, Machine Learning, Honors Linear Algebra, Honors Multivariable Calculus, Statistical Inference, Graph Theory, Number Theory, Abstract Algebra, Complex Analysis, Topology, 2D Game Engines, Introductory CS Courses
- Machine learning with Tensorflow, Pytorch
- Programming Languages: C, C++, x86-64, Java, Scala, Racket, Ocaml, Python, HTML, Basic, R, Prolog
- User skills: Excel, Power Point, Google Docs, Google Sheets, Windows Movie Maker, Premier Pro
- Russian: Fluent, Spanish: 6 years in school (AP Level), French: 3 years in school and private lessons (AP Level)

WORK EXPERIENCE

- **Intern at Applied Materials** May 2020 – August 2020
Participated in development of control software for Applied Materials Etch wafer fabrication systems.
- **Intern at Brown Intelligent Robot Lab** (school year) October 2018 – Present
Working with research group to solve Montezuma's Revenge utilizing skill chaining and reinforcement learning.
- **Intern at SLAC National Accelerator Laboratory** June 2019 – August 2019
Work towards automation of material classification through x-ray imaging for time efficiency and accuracy.
- **Stanford Institutes of Medical Research (SIMR) Summer Program** June 2017 – August 2017
five days a week, 8 hours per day
Participated in a research project that uses machine learning for lung tumor classification. Created a network with a classification accuracy of 83% and presented the research at the final poster session.
- **Stanford Earth Young Investigators (SEYI) Summer Program** June 2016 – August 2016
40 hours per week
Worked on data collection, data processing as well as on a research project. Project investigated the trends between the body sizes and survival methods of marine organisms over all time. Research presented at the 2016 AGU conference.

INTERESTS/ACTIVITIES

- Intramural Soccer 2019
- FHS Science Olympiad Club – Founder and President 2015 – 2018
- FHS Robotics Team – Software 2017 – 2018
Created vision code and automatic cube pick up system

ACHIEVEMENTS/PUBLICATIONS

- Alexander Ivanov, Mu Zhou, Olivier Gevaert “**Convolutional Neural Networks for Lung Nodule Malignancy Classification**”. SIMR 2017
- Alexander Ivanov, Anthony Ngo “**Relation of Body Size and Ecological Modes**” Stanford Earth Young Investigators 2016
Presented at the 2016 AGU conference.
- AIME Qualifier 2017, score 5
- Google Science fair Regional Finalist “**Using extremophiles to generate biomass for Martian colonies**” 2015

REFERENCES

- George Konidaris gdk@cs.brown.edu
 - Assistant Professor Department of Computer Science Brown University, Providence RI
- Apurva Mehta mehta@slac.stanford.edu
 - Staff Scientist, SLAC National Accelerator Laboratory