JONATHAN DEATON

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EDUCATION

09/17 – 03/19 **Stanford University**, Stanford CA – MS in Computer Science
- Planned specialization in artificial intelligence

09/12 – Present **Stanford University**, Stanford CA – BS in Bioengineering, conferred 12/17
- Cumulative GPA – 3.846 / 4.0, Departmental GPA – 3.976 / 4.0
- Awarded departmental honors for completing research, honors thesis, and GPA requirement
- Tau Beta Pi National Engineering Honors Society Member (top 20% of engineering graduating class)

PROJECTS

10/14 – 03/17 **PhaMers Bacteriophage Identification Algorithm**, Undergraduate Honors Thesis Project
- Designed and implemented machine learning algorithm to detect viral DNA sequences
- Discovered and characterized over 100 never seen before bacteriophages
- Presented at the Physical Biology of the Cell conference in Kona, HI

10/16 – 03/17 **Heat Stroke Risk Monitor**, Bioengineering Senior Capstone
- Led team of three to design, build, and test a wearable heat stroke risk monitor
- Designed, implemented and tested machine learning algorithms to predict user risk
- Presented at Rice 360 Global Health Competition and 2017 Tau Beta Pi Engineering Showcase

01/16 – 4/16 **Remote Access Fermentor**, Biomedical System Prototyping Lab
- Designed, built and documented electromechanical fermentor with team of three
- Implemented signal processing circuits, feedback control systems, and network accesses system
- Utilized OnShape CAD to synthesize custom 3D printed parts
- Presented at 2016 Tau Beta Pi Engineering Showcase at Stanford University

EXPERIENCE

06/14 – Present **Bioengineering Lab Researcher**, Quake Lab, Stanford University
- Applied machine learning to detect novel phage DNA sequences
- Designed, performed, and analyzed molecular biology experiments
- Created experimental devices, procedures, and computational tools
- Presented scientific findings in academic conferences and lab meetings

06/16 – 09/16 **Research Associate Intern**, Protein Engineering Group, Illumina Inc., San Diego, CA
- Experimented with optimizing protocols in human exome sequencing
- Enabled quantification of decay in sequencing run data quality to guide protein engineering
- Optimized experimental throughput by automating data analysis of contamination tests

11/15 – 06/16 **Tutor**, Peninsula Tutoring, San Francisco Bay Area, CA
- Improved high school students' performance in math, science, and writing classes

09/12 – 04/16 **Division I Varsity Athlete**, Men's Gymnastics, Stanford University
- Balanced rigorous course load with 25+ hours of training per week
- Managed work while traveling across the country for competitions
- Performed well in high pressure situations
- 2013-15 First Team NCAA Academic All American

10/14 – 10/15 **Clinical Volunteer, Stanford Hospital**, H1 Clinic, Neurology
- Enhanced patient care through personal interaction

5/08 – 8/13 **USA Junior National Team Member**
- Ranked among top seven junior gymnasts in the USA
- Represented the USA internationally during competitions in England, China, and Colombia
- Trained intensively at elite level training camps at the US Olympic Training Center

SKILLS

Proficiency in UNIX/Linux • Python • MATLAB • C/C++ • Git • DNA Sequencing • Molecular Biology • Data Analysis
Experience with Java • Machine Learning • Microcontrollers • 3D Printing • Illustrator • OnShape CAD

COURSEWORK

Mathematics • Computer Science • Software Engineering • Bioinformatics • Medical Device Engineering • Molecular Biology
Physics • Genetic Engineering • Organic Chemistry • Electrical Engineering • Cryptography