

# VENKATA ALAPATI

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## EDUCATION & COURSEWORK

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**UC Berkeley - Management, Entrepreneurship, & Technology Program** **Expected June 2024**  
Dual Degree: B.S. Bioengineering/B.S. Business Administration

**Vista Del Lago High School, Folsom, California** **2016 – 2020**

- *GPA*: 4.59 weighted, 4.00 unweighted
  - *Advanced Coursework*: Multivariable Calculus, Linear Algebra, Differential Equations, Introduction to Logic Design, Bioengineering & Material Analysis, AP Chemistry (5), AP Biology (5), AP Statistics (5), AP Computer Science A (5)
  - *Honors*: Valedictorian, National AP Scholar, State Seal of Biliteracy Recipient, USABO Semifinalist, FIDE Class C Ranking
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## RELATED EXPERIENCE

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**Nanotechnology Unleashed Lab, Berkeley, California** **September 2020 – Present**

***Student Researcher – Biology and Hardware Team***

- Developing a COVID testing device and energy storage solution based on the carbon nanotube technology
- Modelling saliva fluidics and single cell sensing with impedance spectroscopy and RNA analysis to detect SARS-CoV-2
- Creating circuits for the testing device as well as step down/up converters for potential energy storage applications
- Researching new methods for low sample biosensing as well as efficient power conversion circuit designs

**UC Davis Applied Micro/Nano-Electromagnetics Lab, Davis, California** **September 2019 – Present**

***Student Researcher – Project on hold due to COVID 19***

- Aid in finetuning a biomedical sensor to the correct electromagnetic frequency of tumor-specific exosomes
- Analyze admittance and impedance values returned by the sensor in a wide-band sweep to derive a comparable Modified Butterworth-Van Dyke (MBVD) circuit, correlating the plating geometry with EM interference on the sensor
- Helping develop a less obtrusive method of cancer detection through a MEMS sensor

**Hanger Clinic: Prosthetics & Orthotics, Folsom, California** **June 2019 – July 2019**

***Summer Intern***

- Built, assembled, and understood various prosthetics and orthotics
- Explored the anatomy and physiology of the human body through a foundational overview of the kinetic chain
- Investigated different building materials, common points of failure, and current/upcoming solutions

**Intel, Folsom, California** **June 2018 – August 2018**

***Summer Technical Intern***

- Worked with the Computer Architecture and Innovation team within the Client Computing Group to model a smart office camera on the Raspberry Pi platform for the development of more efficient and economical workspace
  - Converted an idea into a physical demonstration using the SDLC process and the SCRUM/AGILE methodologies
  - Utilized P2P networking, KNN algorithms, OpenCV image processing, and facial recognition to enhance functionality
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## LEADERSHIP & ACTIVITIES

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**AG-nee Laboratories Limited, Folsom, California** **October 2019 – Present**

***Co-Founder***

- Co-founded a high fashion clothing company that releases new designs on a season-to-season basis
- Responsible for financial management, marketing, and external communications

**Vista Del Lago Science Olympiad, Folsom, California** **September 2016 – May 2020**

***Founder & President***

- Led more than 25 peers and officers while coordinating 4 major events each year to bring Vista del Lago High School to the Sacramento Regional Competition as one of the top schools in NorCal
- Managed tournament scheduling, fundraising events, finances, and connections with state and national representatives

**TechKnowLogic VEX Robotics Team, Folsom, California** **August 2016 – May 2020**

***Captain***

- Led a team of 5 to the semi-finals in the 2018 US National CREATE Open Robotics Tournament
  - Responsible for both construction and programming of the robot as well as administrative tasks including planning tournament schedules, managing inventory, and allocating tasks to remaining members
  - Recognized for the highest skills score in regional competitions, and among the highest skills scores in the state
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## SKILLS

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- *Languages*: Telugu, Spanish, English
  - *Programming*: Python, Node.js, Java, Verilog HDL, RobotC, HTML, CSS, JavaScript, Scheme, SQL
  - *Interpersonal*: Project Management (Scrum/Agile), Workflow Presentation (Visio, PowerPoint, etc.), Problem Solving
  - *Technical*: Data Analysis, Statistical Inferencing, Quartus Design Tools, Machine Learning, Computer Vision
  - *Laboratory*: Gel Electrophoresis, General Dissections, Cell Staining, Microscopy
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