

# Vishakh Rama Pillai, E.I.T

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## EDUCATION

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UC Berkeley, College of Chemistry  
Degree: Chemical Engineering, B.S.

Graduated: May 2019  
GPA: 3.38/4.0

## WORK EXPERIENCE

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### Intel Corporation

July 2019—Present

#### Process Engineer – Defect Metrology

Chandler, AZ

- Utilize defect morphology and semiconductor fabrication process flow for compiling and classifying defect data
- Determine and direct action on uneconomical factory tools by first analyzing inline trend and correlation data through JMP Pro

### Nuphoton Technologies

June 2018—August 2018

#### Research Analyst Intern

Murrieta, CA

- Presented research of the latest technological developments in fiber optics to executives and provided recommendations for pursuing promising fields in distributed temperature sensing systems and quantum cryptography
- Composed a report on the FDA process to market the photodynamic therapy (PDT) laser as a clinical medical service

### Nuphoton Technologies

May 2017—August 2017

#### LabVIEW Software Engineering Intern

Trivandrum, Kerala, India

- Optimized the performance of a pilot medical device integrating a peak-finding algorithm for Raman spectrums in LabVIEW
- Developed graphic user interfaces to better equip customers to examine their purchased amplifiers

### Alivisatos Research Program

February 2017—May 2017

#### Undergraduate Researcher

Berkeley, CA

- Explored the capabilities of perovskite nanocrystals in solar cell and LED applications through anion exchange experiments
- Boosted time efficiency of lab operations by over 40% by creating a MATLAB script for experimental analysis

## PROJECTS

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### Voice Controlled Mini Robot Car

October – December 2018

- Designed a car that recorded voice commands using a microphone circuit and responded via closed-loop feedback control
- Integrated a principal component analysis algorithm to sort commands into clusters, allowing for more robust processing

### Gitlet

November – December 2017

- Designed a version control system in Java that imitated the basic features of Git given runtime requirements
- Developed operations for staging, merging, removing files and also manipulating branches from the command line

### Database System

September – October 2017

- Constructed a relational database management system (DBMS) to load, print, store, and extract organized data in Java
- Implemented a structured query language to communicate information from the database and tested operations through Junit

## LEADERSHIP

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### Teaching Assistant – Chemical Reaction Engineering Course

August 2018—December 2018

- Conducted weekly grading for over 120 students on design projects and homework
- Provided feedback using problem-solving techniques through reaction engineering fundamentals

### Student Project Lead– Undergraduate Research Lab, ULAB

March 2018—May 2018

- Modeled a ventilation system inside a Martian spacesuit glove by supporting a graduate group's research proposal
- Supervised a team of undergraduates that created a numerical simulation in Python and a representative model in SolidWorks

## SKILLS

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- Languages/Frameworks: Experience with Python, Java, MATLAB and LabVIEW
- Software: Git, Jupyter Notebook, Visual Studio, MS Office 365, LaTeX
- Relevant Coursework: Data Structures, Discrete Mathematics and Statistics, Mathematical Methods in Chemical Engineering