

# PURU PAHUJA

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## EDUCATION

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### Bachelor of Science, Electrical Engineering and Computer Sciences

May 2021

University of California, Berkeley

*Multivariable Calculus, Physics for Scientists & Engineers, Designing Information Devices and Systems, Structure and Interpretation of Computer Programs*

## WORK EXPERIENCE

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### Software Engineering Intern

July to August 2016

Forbes Technosys Limited – Mumbai, India

- Created user interface for site monitoring system with temperature, motion, and smoke sensors on Linux-based OS
- Programmed student profiling system for local high school in C++

### Web Development Intern

July to August 2015

Digital Butter – Hong Kong

- Developed front-end of client websites and optimized user interface of company's website
- Conducted alpha-testing for stock-market simulator and reported bugs and suggestions for improvement

## RESEARCH

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### Electrical Noise Induced by Surrounding Electromagnetic Oscillations

January to October 2016

Jonathan Gilchrist – West Island School, Hong Kong

- Designed and conducted thorough experimentation to test research goal
- Conducted data analysis with error calculations and schematic diagrams, trend-line verification, abstract, and conclusion

### Investigation of Palindromic Numbers

March to June 2017

Andrew Cockayne – West Island School, Hong Kong

- Researched various characteristics (types, divisibility, existence in ranges, bases, and applications) of palindromic numbers
- Devised efficient Python programs to automate tests to check for divisibility on palindromic numbers on a large scale

## VOLUNTEER WORK

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### Math Scholars

February 2015 to May 2017

Digital Butter – Hong Kong

- Led team of 15 students to provide enrichment activities to school e.g. Puzzle-of-the-Week and enrichment webpage
- Trained 40 students for prestigious international math competitions for various individual and group challenges

### CoolCompCreate

May 2013 to April 2017

Founding Instructor

- Founded creative computing academy in 8<sup>th</sup> grade to teach programming to younger students
- Taught web & app development, algorithmic thinking, and 3D animation to an aggregate of 200 students

## SELECTED PROJECTS

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### Mars Rover Team

August 2017 to Present

- Undergoing extensive practical training in C++ for GUI development and geolocation with beacons
- Engineering autonomous driving system to control vehicle speed and navigation past obstacles and reach the goal

### Sintaks

April 2015 to January 2017

- Constructed online STEM-focused learning platform with user-registration system, JavaScript quizzes, and tutorial videos
- Led content developers to create interactive tutorials on topics like Java, neurobiology, and physics

## SKILLS

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- **Design:** Illustrator, Photoshop
- **Web Development:** HTML5, CSS3, JavaScript, PHP, MySQL, Python
- **Application Development:** Python, Java
- **Embedded Systems:** Embedded C with Raspberry Pi, TKM4C123, MSP430
- **Lab & Research:** Circuit Design, Experiment Design, Data Analysis, Academic Writing & Citations
- **Languages:** Hindi, Punjabi, Mandarin

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