

Jacob Hambalek

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PERSONAL STATEMENT

A dedicated, proficient and adaptable researcher. Consistent desire to learn and develop new skills. Experienced in project development and strategic planning. A confident presenter and teacher, with the ability to share knowledge in various settings and to audiences of all levels. Seeking an introductory role as an engineering intern.

HISTORY

01/2017 – Present

Undergraduate Researcher | University of California, Los Angeles, Los Angeles, CA, USA

- Leader of an extension to the research project worked on as a research assistant
- Application of novel DNA detection techniques to Quantitative Polymerase Chain Reaction (PCR)
- Under the leadership of Principal Investigator Dino Di Carlo and Supervisor Janay Kong

04/2016 – 12/2016

Undergraduate Research Assistant | University of California, Los Angeles, Los Angeles, CA, USA

Research Assistant for the Di Carlo Microfluidics Laboratory – working under the guidance of Ph.D candidate Janay Kong

- Development of novel DNA detection techniques for Loop Mediated Isothermal Amplification (LAMP)
- Microfabrication of PDMS devices for Digital LAMP system

09/2016 – 12/2016

Academic Tutor

- Provided tutorials on Multivariable Calculus, Linear Algebra, and Organic Chemistry

EDUCATION

09/2015 – 06/2019

University of California, Los Angeles | Los Angeles, CA, USA

B.S: Bioengineering. Technical Breadth: Engineering Mathematics

GPA: 3.58

Dean Honors List: 2015

PROFESSIONAL DEVELOPMENT

- UCLA Alumni Scholars: Leadership Development Training: Executive members of the Alumni Scholars Club at UCLA attended a leadership training where members learned different leadership styles and how best to communicate in groups

ADDITIONAL SKILLS

- **Wet Lab-** Loop Mediated Isothermal Amplification (LAMP) | Polymer-Based Microfabrication | Quantitative Polymerase Chain Reaction (qPCR) | Gel Electrophoresis | Enzyme Linked Immunosorbent Assays (ELISA)

- **Data Processing and Analysis** - Nikon NIS-Elements AR | OriginPro | Adobe Illustrator | Microsoft Office Suite
- **Programming** – MATLAB
- **Languages** - Spanish
- **Teaching, Tutoring and Presenting**

PUBLICATIONS

“Highly Stable and Sensitive Nucleic Acid Detection Using Unique Dye Interactions and A Fluorescence Multi-well Plate Reader on a Mobile Phone” – Janay Kong, Qingshan Wei, Derek Tseng, Jingzi Zheng, Eric Pan, Michael Lewinski, Omai Garner, Aydogan Ozcan, Dino Di Carlo. 2016. Presented at: MicroTAS, October 2016; Biomedical Engineering Society Annual Meeting 2017

PROFESSIONAL MEMBERSHIPS

Member | Biomedical Engineering Society (2015)

REFERENCES ON REQUEST