

# David Pacheco

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## Education

Massachusetts Institute of Technology

Cambridge, MA

- Candidate for B.S. in Computer Sciences - 4.4/5.0 September 2015 – June 2019
  - Relevant Coursework: Intro. to Algorithms, Mathematics for Computer Sciences, Principles of Microeconomics, Principles of Macroeconomics, Intro. to EECS, Differential Equations.
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## Work Experience

Research Laboratory of Electronics - Quantum Photonics Group

Cambridge, MA

Undergraduate Researcher

Feb. 2016 - Present

- Improved speeds from 100 to 600 phase sets per second to allow for faster experimentation
- Applied fidelity handshake protocol to ensure proper transmission of data between Teensy and PC
- Improved an existing Python/PYQT4 program that interfaces between the lab setup and the user

The Boeing Company

St. Louis, MO

Information Technology Intern

May - Aug 2016

- Created PowerShell Scripts to gather information from Oracle database and create reports
- Debugged proprietary web-tool pages linked to SQL Database using Perl
- Proposed new 3D Scanning tools for a Boeing Defense, Space and Security Mars Rover

Alphadyne Asset Management

New York City, NY

IT Intern

Jan - Feb. 2016

- Researched and proposed firewall implementations for site blocking and email filtering
- Developed Python scripts for automatic SFTP retrieval and dumping of company sensitive data
- Implemented centralized logging services with an Elasticsearch open source suite

Hialeah Technology Center

Hialeah, FL

IT Specialist

June - Aug. 2015

- Upgraded company's website with HTML5 Responsive style features
  - Implemented PHP middleware for patients' online health assessment
  - Led research project to develop web-based fuzzy logic system to determine risk of heart disease with MATLAB
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## Publications and Certificates

Oracle:

International

Certified Associate Java SE 7 Programmer

Mar. 2015

A Web-based Fuzzy Inference System Based Tool for Cardiovascular Disease Risk Assessment

Publication: <http://unicolmayor.edu.co/publicaciones/index.php/nova/article/view/304/561>

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## Professional Membership

Epsilon Theta Chapter of Sigma Nu Fraternity

Technology Chair

June 2016 – Present

Students for the Exploration and Development of Space

Vice President

June 2016 - Present

Virtual Reality at MIT

Vice President of Resources

Aug 2016 – Present

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## Skills & Interests

- Proficient: Teensy, Arduino, Python, Java, PHP, MySQL, Perl, PowerShell
- Familiar: OpenCV, MATLAB, Unity, HTML, Linux CLI
- Interests: Robotics, Machine Learning, Machine Vision, Virtual Reality, Systems Automation