Angeline Aguinaldo

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EDUCATION

DREXEL UNIVERSITY
MS in Electrical Engineering
June 2017 | Philadelphia, PA
GPA: **3.79**

Engineering Management
Graduate Certificate
June 2017 | Philadelphia, PA

BS in Biomedical Engineering
Magna Cum Laude
June 2017 | Philadelphia, PA
Conc. in Medical Devices and Imaging
College of Biomedical Engineering
GPA: **3.70**

COURSEWORK

GRADUATE
Probability & Random Variables
Detection & Estimation Theory
Random Process & Spectral Analysis
Fundamentals of Computer Vision
Programming Foundations
Pattern Recognition
Media Forensics & Security

UNDERGRADUATE
Human Physiology I, II
Computational Bioengineering
Transform Methods I, II
Medical Imaging Systems I, II, III
Biomedical Instrumentation
Digital Signal Processing
Probability & Statistics

SKILLS

PROGRAMMING
Python • MatLab • C++ • Java • OpenCV • scikit-learn • HTML5 • CSS • JavaScript

SOFTWARE
MS Visual Studio • VBA • Eclipse • GitExtensions • Weka

RECOGNITIONS

2016 Janelia Undergrad. (HHMI), Program Finalist
2015 Charles E. Etting Award, Scholarship Recipient
2014 Student Leader of the Year, Award Recipient
2012 A.J. Drexel Award, Scholarship Recipient

PROFESSIONAL EXPERIENCE

JOHNS HOPKINS APPLIED PHYSICS LAB | Software Developer
Aug 2017 - Present | Laurel, MD

- Develop supporting back-end software for object detection and recognition utilizing deep learning technology
- Design frameworks and algorithms for automated document image ingestion and analysis

SRI INTERNATIONAL | Electrical Engineering Co-op
Mar 2014 – Sept 2014 | Princeton, NJ

- Designed preliminary circuit schematics for biometric identification systems
- Programmed and debugged sleep mode functions on Atmel microcontroller
- Performed senior engineer-level testing and data processing for CCD and CMOS camera imagers
- Drafted test protocols and high level design documents (HDD) and conducted cost-analysis of high-volume Bill of Materials (BOMs)

RESEARCH EXPERIENCE

BIOIMAGE ANALYSIS LABORATORY | Graduate Researcher
Jan 2015 – June 2017 | Philadelphia, PA
Worked with **Dr. Andrew Cohen** at Drexel University to develop **LEVer**, an automated cell analysis, lineaging, and editing software.

- Designed advance object segmentation and tracking algorithms to characterize proliferation models of various cell types (i.e. non-small lung cancer cells, neural progenitor cells, T-cells, embryonic stem cells)
- Developed solutions for mitotic detection screening which include data intake, data cleaning and processing, feature extraction, graph traversing, and designing machine learning ensembles

PRINCETON QC LASER LAB | Undergraduate Researcher (REU)
Jun 2013 – Aug 2013 | Princeton, NJ
Worked with **Dr. Claire Gmachl** at Princeton University to enhance gain in quantum cascade (QC) lasers to be used in applications such as non-invasive blood glucose monitoring.

- Built experimental set-up and conducted data acquisition of tunable QC lasers to determine viability of various designs
- Analyzed electroluminescence spectrum measurements to identify improvements in laser gain in Origin 8.5

SENIOR DESIGN PROJECT

DISEASY Sept 2016 – May 2017 | Drexel University
A web application that predicts and visualizes disease likelihood using machine-learning models generated from clinical laboratory data. Stakeholder: **Dr. Anita Gupta**, Vice Chair of Pain Medicine at Hahnemann University Hospital.

PUBLICATIONS

M. Caino, J. H. Seo, A. Aguinaldo, et. al., *A Neuronal Network of Mitochondrial Dynamics for Go-Or-Grow Decisions in Cancer*, Nature Communications. 2016.