

# Michael Lane

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## EDUCATION

**PORTLAND STATE UNIVERSITY**  
MS IN COMPUTER SCIENCE

**UNIVERSITY OF PHOENIX**  
MS IN CIS

**ILLINOIS TECH**  
BS IN MATHEMATICS

## PROJECTS

### SCHOOL

- User-level threading library in C and x86 assembly
- Face detection and recognition using OpenCV and Scikit-Learn
- Minified version of IRC using Python 3's new asyncio library
- Amazon Alexa skill with AWS Lambda backend for working with lists of any type

### PERSONAL

- Personal lending library application for middle school teacher
- Amazon Alexa skill with AWS Lambda backend to help people play board games

## COURSEWORK

- Machine Learning (TA)
- Operating Systems (TA)
- Artificial Intelligence
- Advanced AI: Combinatorial Games
- Computer Vision
- Spoken Language Interfaces
- Cryptography
- Computer Security
- Internetworking Protocols
- Mobile Health
- Practicum in Asynchronous Systems and Algorithms
- Algorithms
- Databases

## LINKS

Github:// [mikelane](#)  
LinkedIn:// [lanemik](#)

## EXPERIENCE

**NEXTAS AMERICA, INC. | SOFTWARE DEVELOPMENT ENGINEER**  
Jan 2018 – Current | Washougal, WA

- Using Python, Keras, Tensorflow, and C++ to R&D novel deep learning approaches that replace legacy machine vision software
- R&D for a novel self-supervised deep neural network using Python and Keras to generate a depth map from a pair of stereo images

**HEALTHSPARQ | SOFTWARE DEVELOPMENT ENGINEER II**  
Aug 2017 – Dec 2017 | Portland, OR

- Used Java, Ruby, and Docker to build an internal dashboard microservice hosted on AWS EC2 to inform management
- Use Java and Alexa Skills Kit to build a prototype Alexa skill that integrated with internal tools to allow users to search for and book health care

**PORTLAND STATE UNIVERSITY | TEACHING ASSISTANT**  
September 2014 – June 2017 | Portland, OR

- TA for Machine Learning and graduate Operating Systems

**CDK GLOBAL | SOFTWARE ENGINEER INTERN**  
June 2016 – Sep 2016 | Portland, OR

- Developed REST API service using Python, Flask, and Cassandra that supports 40,000 phones making hundreds of thousands of simultaneous connections
- Built system using Machine Learning to allow 3 Raspberry Pi receivers to track the locations of 6 BLE beacons to an accuracy of within 6 meters

**ACQUIA | SUPPORT ENGINEER INTERN**  
June 2015 – June 2016 | Portland, OR

- Fixed bugs and improved functionality of a Remote Administration script using PHP, Bash, and Drupal Shell (Drush)
- Created an automation using PHP that reduced the time spent running a weekly mass update task from 3 hours to 5 minutes

**PORTLAND STATE UNIVERSITY | TCSS**  
December 2014 – June 2016 | Portland, OR

- Supervised 2 to 3 instructors and 20 to 30 students during CS course labs teaching programming basics, algorithms, data structures, and OOP principles using C++ and Java

**SMUGMUG | UI/UX DEVELOPER**  
April 2007 – April 2009 | Telecommute

- Customized SmugMug sites for important customers and partners
- Used PHP, HTML and CSS to document and explain site updates for end users

**US AIR FORCE | AIR MOBILITY LIAISON OFFICER**  
November 2003 – June 2006 | Ft. Lewis, WA

- Planned and led wartime replacement operations of one 3,000+ soldier brigade with another in Mosul, Iraq
- Developed a plan in Iraq to establish flight operations at a remote air base resulting in a reduction the need for deadly convoys

**US AIR FORCE | KC-135 EVALUATOR NAVIGATOR**  
November 2000 – October 2003 | McConnell AFB, KS

- Instructed and evaluated KC-135 navigators to ensure they could complete missions safely and effectively
- Conducted nearly 100 air refueling missions over Afghanistan between October 2001 to March 2003
- Executed over 100 air refueling missions over Iraq between March 2003 and May 2003