

Aidan Lakshman

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EDUCATION	University of Pittsburgh, School of Medicine <i>Doctoral Fellow, Biomedical Informatics Training Program</i>	2020 – 2025 (expected)
	<ul style="list-style-type: none">▪ Advisor: Dr. Erik Wright▪ Dissertation Topic: Using coevolutionary signal to predict function of uncharacterized proteins▪ Funded by National Library of Medicine T-15 Training Grant	
	University of Central Florida <i>Bachelor of Science, Mathematics, magna cum laude</i>	2016 – 2020
	<ul style="list-style-type: none">▪ Burnett Honors College▪ National Merit Scholar	
	Nagasaki University of Foreign Studies <i>USAC Study Abroad, Japanese Language and Culture</i>	Summer 2019
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CONFERENCE PRESENTATIONS	BioConductor, Long Workshop* <i>Using comparative genomics to predict protein coevolution networks with the DECIPHER and SynExtend packages</i>	July 27-29, 2022 Seattle, WA
	Evolution, Research Talk <i>Ensemble Methods Improve de novo Prediction of Protein Functional Association Networks</i>	June 24-28, 2022 Cleveland, OH
	NLM Informatics Training Conference, Focus Talk <i>Ensemble Methods Improve de novo Prediction of Protein Functional Association Networks</i>	June 22-24, 2022 Buffalo, NY
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TEACHING & ADVISING	UPMC DDCF-UI Program <i>Advisor</i>	Summer 2022
	<ul style="list-style-type: none">▪ Mentored undergraduate students for a summer-long research internship program▪ Designed summer research projects for mentees▪ Gave lectures to intern cohort	
	R Programming for Scientific Research, Univ. Pittsburgh <i>Teaching Assistant</i>	Fall 2021
	<ul style="list-style-type: none">▪ Helped teach a graduate level course in R programming▪ Gave lectures, graded assignments, and wrote quizzes	
	Artificial Intelligence Club, Univ. Central Florida <i>Director</i>	2018 – 2020
	<ul style="list-style-type: none">▪ Gave regular lectures on machine learning to classes of >30 undergraduates▪ Led several journal clubs for undergraduate students▪ Coordinated sponsorship opportunities and guest speakers	
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OTHER FUNDED RESEARCH	Robotics Institute Summer Scholar, Carnegie Mellon University <i>Intelligent Coordination and Logistics Lab</i>	Summer 2018
	<ul style="list-style-type: none">▪ Funding Agency: National Science Foundation▪ Principal Investigators: Dr. Stephen Smith and Dr. Isaac Isukapati▪ Contributed Work: used Bayesian hierarchical modelling to predict bus dwell times for traffic signal control optimization, and used cellular and DSRC GPS readings to improve positioning in an intersection for use in an app for mobility impaired pedestrians.▪ Total Award: \$5,250	
	Burnett Research Scholars Grant	2018 – 2019
	<ul style="list-style-type: none">▪ Funding Agency: UCF Burnett Honors College▪ Principal Investigators: Aidan Lakshman, Dr. Annie Wu (Advisor)▪ Project Title: Improving efficiency of embodied evolutionary robotic systems within the context of multi-foraging problems by incentivizing exploration behavior.▪ Total Award: \$3,000	
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**WORK
EXPERIENCE**

Amazon Web Services, Herndon, VA [Virtual]
Software Development Engineer Intern

Summer 2020 & 2021

- Led a team to implement a robust testing framework for Service Workbench on AWS, an open source AWS product to help researchers easily provision cloud resources.
- Redesigned how AWS accounts are handled by implementing new UI components, writing API calls, and implementing backend server request handling
- Designed UI components using React, backend components with Node.js, and additional processes with AWS Lambda

Software Engineering Institute, CERT Division, Carnegie Mellon University
Data Science / Software Engineering Intern

Summer 2017

- Developed a Python application utilizing Apache Spark to use Latent Dirichlet Allocation to identify trends in malware data.
 - Developed a Python program to simulate web traffic and user activity for cyberdefense training environments.
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SKILLS

High Performance Computing

- Experience implementing genomics algorithms on distributed systems
- Over 150,000 compute hours on HPC systems
- Passed AWS Cloud Practitioner Certification Exam

R Programming

- High level of proficiency, particularly in comparative phylogenomics
- Published code in the SynExtend R package

Other Programming Languages

- Development experience with JavaScript, Python, Bash, and PowerShell
- Proficiency with C, C#, Java, and Haskell

Foreign Languages

- Conversational proficiency in Japanese and German

Computer Engineering

- Designed and built a cloud storage system with multiple layers of data redundancy
 - Built a four-node supercomputer using Kubernetes on Raspberry Pis
 - Built a computer from scratch on a breadboard with a 6502 microprocessor
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**Submission under review*