## BOOPALAKRISHNAN ARUL

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# **PROJECTS**

## Zeal Vora. 2021. AWS Certified Cloud Practitioner 2021. Udemv.

- February 2021 present
- Taking an online prep course for the AWS Cloud Practitioner entrylevel certification from Amazon.
- Working through demos and short activities in Elastic Cloud Compute (EC2), Simple Storage Service (S3), Elastic Load Balancer (ELB), AWS Lambda, and all other AWS computation, storage, and security services.
- Gaining general competency in network diagnostics through combining cloud services with Unix utilities like ping, traceroute, and telnet in custom scripts.

#### Roger's Urban Farmlab: Air Quality Sensors, Web Application

- 苗 January 2021 present
- Maintaining and adding to the codebase of a Express/Node.is web application with Apache reverse proxy and MySQL database.
- This website will function as a dashboard and analytics platform for data from several Arduino environment-control systems installed in UCSD's largest community garden.
- Working on adding graphs to this website with d3.js, and getting it ready for live deployment.

## Computational Psychology: Bayesian Classification For Delusions

- June 2020 present
- Participated in original research with the advice of Professor Sarah Marzen of Claremont McKenna College.
- Designed a simulation for a hypothetical metacognitive therapy method for schizophrenia, that may help schizophrenics sort delusional snapjudgements from accurate observations. Used Python for data manipulation/statistical operations, made visualization graphs in Python's Matplotlib library.
- Working to publish the results of this research in the Frontiers of Psychology journal.

## Diary Distiller: NLP, Sentiment Analysis, and Recommendation

- iii Oct 2020 Dec 2020
- Designed and trained several Natural Language Processing models in Python TensorFlow to solve sentiment analysis tasks through multiclass discrete classification or multiple target regression.
- Deployed model on Heroku with Tensorflow Serving, and designed a PHP backend that could query this model with HTTP requests. This backend formed part of my team's blog website, where users could make posts, and be recommended other users' posts based on the posts' emotional content (as categorized by our model) and the user's emotional state, as deduced from their own recent posts.
- Won 3rd Place in IEEE Quarterly Projects for the Fall 2020 academic quarter.

## **EDUCATION**

B.Sc. in Biology with a Specialization in Bioinformatics.

#### University of California, San Diego

**Sept 2018 - June 2022** 

GPA: 3.34

#### Relevant Coursework:

- BIBC 100. Structural Biochemistry.
- BIMM 100. Molecular Biology.
- MATH 186. Probability and Statistics for Bioinformatics.
- CSE 15L. Software Tools and Techniques Laboratory.

## RECOGNITION



#### 3rd Place, IEEE Quarterly **Projects**

My team won this distinction in IEEE OP Fall 2020.



## 126 Hours of Service, Office of **Senator Joel Anderson**

Promoted community events in Senate District 38, in partnership with rural businesses. Received a letter of recommendation in recognition of 126 hours of service.

## SKILLS

Web Development Java Python Data Visualization Linux Ubuntu Fedora Bash shell **Differential Equations** Statistical Analysis Machine Learning Data Structures and Algorithms Amazon Web Services