

## RAVINDU UDUGAMPOLA

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### EDUCATION

#### Oregon State University, Oregon

##### Bachelor of Science (B.S.), Computer Science

June 2023

Coursework: Data Structures and Algorithms, Programming fundamentals, Web Development, Database management, Operating Systems, Front and Back-end Development

#### University of California, Los Angeles

##### Bachelor of Science (B.S.), Biochemistry

March 2018

Coursework: Biochemistry, Organic/Inorganic Chemistry, Molecular Biology and Genetics.

#### West Los Angeles College, Culver City

##### Associate of Science (A.S.), Computer Science

August 2020

Coursework: programming in low-level and essential languages, data structures, database and web programming and network operating system fundamentals.

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### PROJECTS

#### Exercise Tracker | *JavaScript, MongoDB, Express, React, Node.js*

- ❖ Developed a fictional full-stack web application to allow a user to track their exercises over time
- ❖ Implemented backend with Node.js to serve and modify workout user data via route endpoints
- ❖ Built frontend with React.js to scale tabular UI components
- ❖ Utilized MongoDB to store persistent data

#### Merchant Portal | *Python, Flask, MySQL, Jinja*

- ❖ Developed a full-stack web application for a fictional chain of liquor stores to track relevant business data
- ❖ Implemented backend with Flask to serve and modify data on orders, stores, employees, customers, and products
- ❖ Built frontend with Jinja templates to display UI components
- ❖ Utilized MySQL database to store persistent data

#### Bookstore Application | *Python, Tkinter, SQLite*

- ❖ Developed a desktop app for a fictional bookstore to view, search, and modify inventory
- ❖ Built desktop GUI using Tkinter
- ❖ Utilized SQLite database to store persistent data

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### PROFESSIONAL EXPERIENCE

#### Senior Laboratory Analyst

##### Los Angeles County Sanitation Districts – Join Water Pollution Control Plant Process Control Group

March 2022 – Present

- ❖ Serve as the LIMS Power User to assist with issues related to LIMS and to communicate with LIMS administrator to resolve issues
- ❖ Lead and participate in routine and complex non-standardized chemical and biological analyses on various samples, including receiving waters, treatment plant influents and effluents, biosolids, groundwater, and research samples to determine the effectiveness of treatment and conformance to State of California requirements
- ❖ Conduct field testing to ensure compliance of the wastewater treatment plant
- ❖ Compiles, correlates, and analyzes test data generated by laboratory technicians
- ❖ Provide technical assistance to laboratory technicians and review data produced by analysts
- ❖ Assist higher classes on research projects and train new laboratory technicians
- ❖ Prepare standard solutions and reagents
- ❖ Inspects, adjusts, cleans, maintains, and operate laboratory equipment, materials, and work area

### **Laboratory Analyst I**

#### **Los Angeles County Sanitation Districts – San Jose Creek Water Quality Laboratory Organics Groups June 2020 – March 2022**

- ❖ Conduct routine sample preparation and analyses on environmental samples including water reclamation plant influent and effluents, groundwater, industrial wastewater, landfill, sediments, and biosolids.
- ❖ Write, review, and revise laboratory Standard Operating Procedures.
- ❖ Skilled in sample preparation and analyses following EPA guidelines (EPA 608.3 and 8081/8082, EPA 625.1 GPC and 8270 BNAs, 8011 EDB/DBCP, 1625M Nitrosamines, 8015 DRO/ORO, SW3535 1,4 – Dioxane, EPA 610 PAHs).
- ❖ Conduct analyses and perform routine maintenance using GC-FID, GC-ECD, and GC-MS instruments including calibrations.
- ❖ Conduct training for new technicians in extraction methods and laboratory procedures.
- ❖ Prepare standards and reagents for extractions and analyses.
- ❖ Extract, analyze, and report annual PT samples for variety of methods.

### **Laboratory Analyst I**

#### **Los Angeles County Sanitation Districts – JWPCP WQL Process Control Group October 2018 – June 2020**

- ❖ Perform collection, handling and preparation of variety of environmental samples.
- ❖ Conduct field sampling, field measurements, and preservation and preparation of environmental samples.
- ❖ Conduct and participate in a variety of routine chemical analyses on samples from wastewater treatment facilities, including plant influent and effluent.
- ❖ Specialized in conducting TSS, TS, TDS, Turbidity, Volatile Acids, Alkalinity, pH, Settleable Solids, BOD5, COD, Conductivity, and Chlorine Residual Analyzes.
- ❖ Revise Standard Operating Procedure.

### **Research Assistant**

#### **UCLA Department of Integrative Biology and Physiology**

#### **June 2015 – October 2018**

- ❖ Assist with numerous lab projects under the supervision of post-doctoral students.
- ❖ Perfuse, extract, and block mouse brains for cryosectioning.
- ❖ Dispose of biological and hazardous waste following safety protocols.
- ❖ Clean and sterilize equipment/stock solutions.
- ❖ Collect Patch-clamp data, then analyze and interpret via graphs and charts.
- ❖ Present data via PowerPoint or poster presentations in weekly lab meetings.
- ❖ Tabulate and maintain an Excel file of chemicals/materials required and order as necessary.
- ❖ Prepared charts, graphs, and high-resolution microscope images for scientific papers.

### **Assistant I - Computer/Technical Support**

#### **UCLA Anderson School of Management**

#### **January 2018 – December 2018**

- ❖ Edit events, update events, and format events to maintain standard website style.
- ❖ Use HTML/CSS to update the website based on needs of the department.
- ❖ Develop standard websites to transfer current website over to a new server and manage updating the website with latest information.
- ❖ Develop content using CMS.

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### **AWARDS**

- ❖ LA County Sanitation Districts Excelsior Award
- ❖ UCLA Deans Honor Award (Fall 2014, Winter 2015, Spring 2015, Fall 2015 and Fall 2016)

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## TECHNICAL SKILLS

- ❖ Database/Server Systems (Oracle PL/SQL 11g, PostgreSQL, MongoDB, MySQL, Relational Database Design)
- ❖ Python (Flask, Django, Pandas, Numpy, Matplotlib, and Standard Libraries)
- ❖ Javascript (React, Node.js, Express, JQuery, D3, NPM)
- ❖ Web Development (C#, ASP.NET CORE, REST APIs, MVC, HTML, CSS, Bootstrap)
- ❖ Libraries and Developer Tools: Tkinter, Pygame, PyCharm, Visual Studio Code, Git (GitHub)
- ❖ Report Generation: Microsoft Power BI
- ❖ Proficient in Microsoft Office Programs (Word, Excel, PowerPoint).
- ❖ Applications: Visual Studio, IntelliJ IDEA , Eclipse IDE, Oracle PL/SQL Developer,
- ❖ Version Control Systems/Collaborative Tools: Git, CVS, Microsoft SharePoint
- ❖ Operating Systems: Windows, OS X, Linux (CentOS and Ubuntu), and Unix