



# portfolio.

Archie Verma

B. Software Engineering

2019-2023



# OVERVIEW

0466815945  
archieverma114@gmail.com

From a young age, I was drawn to creativity and design, whether it was sketching ideas, experimenting with colors, or bringing concepts to life digitally. My fascination with technology grew alongside my love for aesthetics, leading me to explore web design and development early on. I started by customizing websites, playing with HTML and CSS to make them visually appealing, and soon discovered the power of React, WordPress, and Figma in crafting seamless user experiences. This passion for blending design with functionality naturally led me to pursue a Bachelor of Software Engineering (Honours), where I improved my skills in front-end development, UI/UX design, and problem-solving.

Over the years, I expanded my expertise into database management (MongoDB, SQL, Salesforce), e-commerce integrations (Stripe, Tawk Chatbot), and project deployment (Heroku, Vercel, SiteGround). My adaptability allows me to quickly grasp new tools and technologies, making me a versatile professional in both technical and design-oriented roles. Whether I'm wireframing in Figma and Vectary, developing interactive web applications, or optimizing e-commerce platforms, I approach every project with creativity, precision, and a user-centric mindset. My journey has been one of continuous learning and innovation, driven by the belief that great design is not just about aesthetics but also about functionality and impact.

B. Software Engineering  
The University of Adelaide



# ARCHIE VERMA

SOFTWARE ENGINEER

## Profile

An adaptable professional skilled in problem-solving, communication, and creativity. Experienced in web design and data management, with a passion for continuous learning and improvement and a growth-oriented mindset for both technical and non-technical projects.

## EXPERIENCE

### ASSOCIATE TK MAXX

OCT 2024 - Present

- Managed registers, store flow, backend processing, customer service, training new team and security. This role enhanced my customer service, communication and teamwork skills vital for all careers.

### GEO-DATA & E-COMMERCE ANALYST TELUS INTERNATIONAL

NOV 2023 - OCT 2024

- Verified business details, resolved data discrepancies, managed datasets, collaborated with banks, and optimized e-commerce operations using tools like Exotel and CrowdCompute.

### WEB DEVELOPER COSY UP

APR 2023 - MAR 2024

- Designed and managed website frontend/backend, integrating payments and sales plugins. Conducted security audits, managed content, and optimized online presence.

### AUDITOR RANDSTAD

MAR 2022 - OCT 2022

- Conducted student attendance audits, ensuring data accuracy for resource planning

### SOFTWARE INTEGRATION ASSISTANT RENT THE ROO

JUL 2020 - JUN 2021

- Transferred data to Salesforce using Data Import Wizard and Data Loader, improving data management, storage, and client collaboration.



0466815945



archieverma114@gmail.com



<https://www.linkedin.com/in/archie-verma>



<https://archieverma-portfolio.vercel.app>



<https://github.com/pixelperfect02>

## EDUCATION

### THE UNIVERSITY OF ADELAIDE

2019 - 2023

Bachelor of Software Engineering (Honours)

## PROFICIENCIES

- Web Design: HTML/CSS, React, WordPress
- Design Thinking, Wireframe creation: Canva, Figma, Vectary, Lottie Animations
- Coding and Problem Solving: JavaScript, React, Python, Java, JavaScript, Ruby on Rails
- Computer Literacy: Microsoft Office, Google Workspace
- Project Planning & Management, Deployments, Payments, AI Integration: Heroku, Vercel, SiteGround, Stripe, Tawk Chatbot, Formspree
- Database Management: MongoDB, Basic SQL, Salesforce

## AWARDS

- 2023 University of Adelaide's Graduate Award
- 2022 Ingenuity Most Innovative Software Engineer Award

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E-commerce app in React and Node js using Stripe for payments, MongoDB Atlas for database and Tawk for Chatbot

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A React Application developed to showcase my computer science journey.

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An application to count the number of people entering and exiting an area over a given period from a video using machine learning.

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The project was aimed to create a security question and answer evaluator, assessing their quality and the risk of compromise via OSINT, to aid users in selecting secure options and identifying potential vulnerabilities.

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An e-commerce venture. Created this WordPress website hosted on SiteGround, with a GoDaddy domain.

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## 3D MODEL ROBOT

A 3d model designed for fun on vectory, embedded in create js and deployed on vercel.

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## EMOJI LOVER MOBILE APP

This is a straightforward mobile app developed using Xcode and Swift, enabling users to effortlessly switch between various emojis.

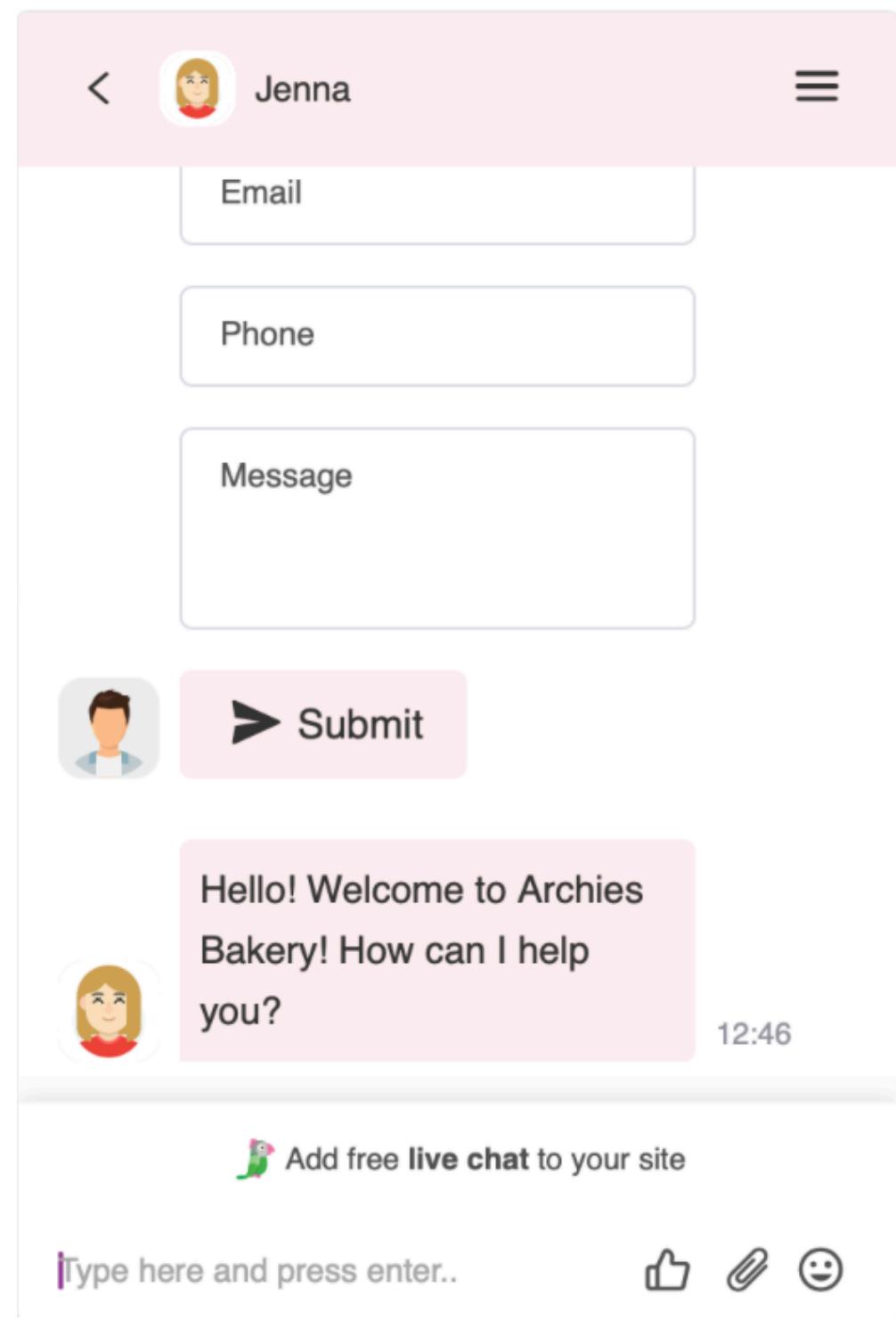
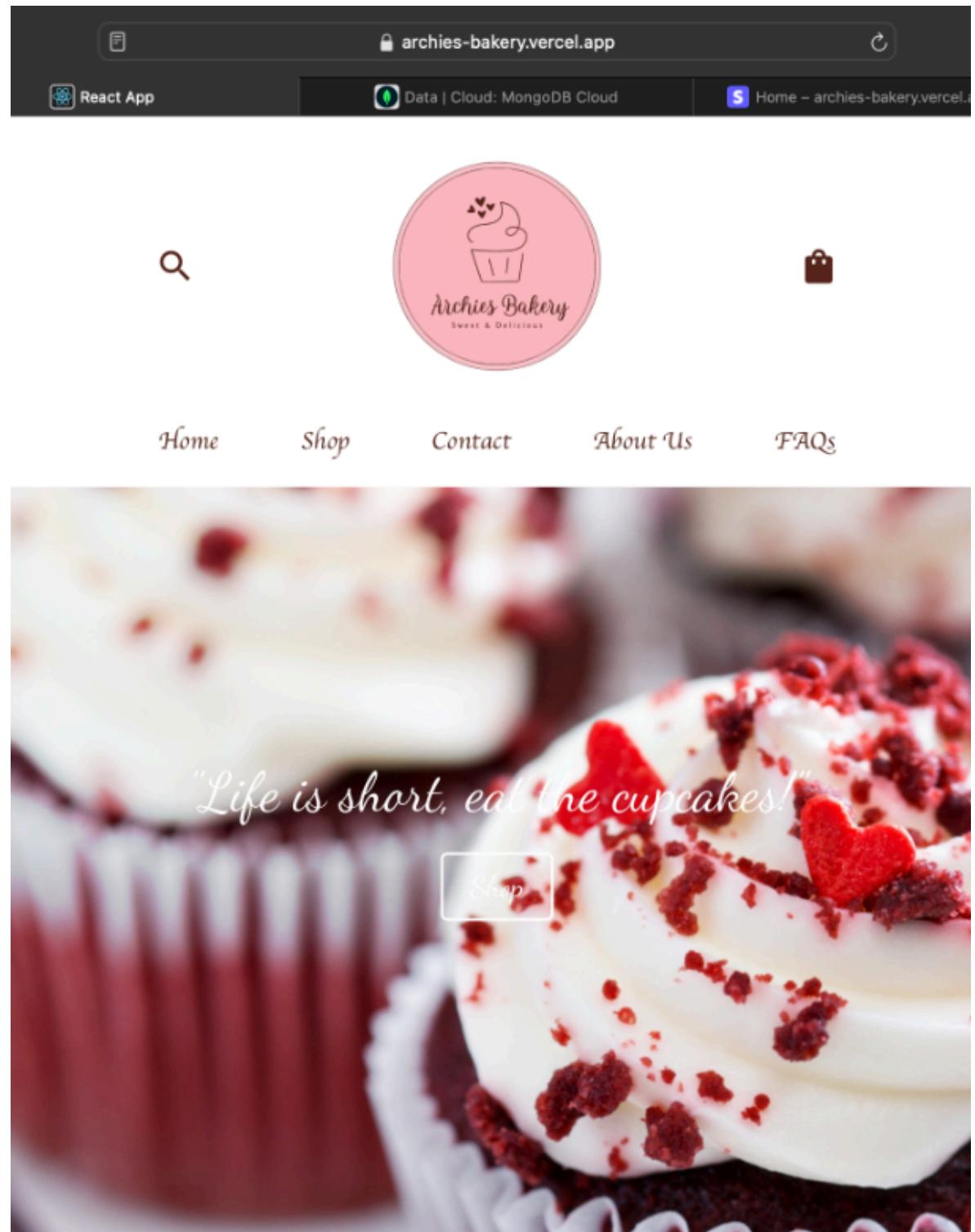
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## JUPYTE WORKFLOW

An illustrative project showcasing the utilization of Jupyter Notebook and voila was used to turn the Jupyter notebook into a standalone web application.

pg 16-19

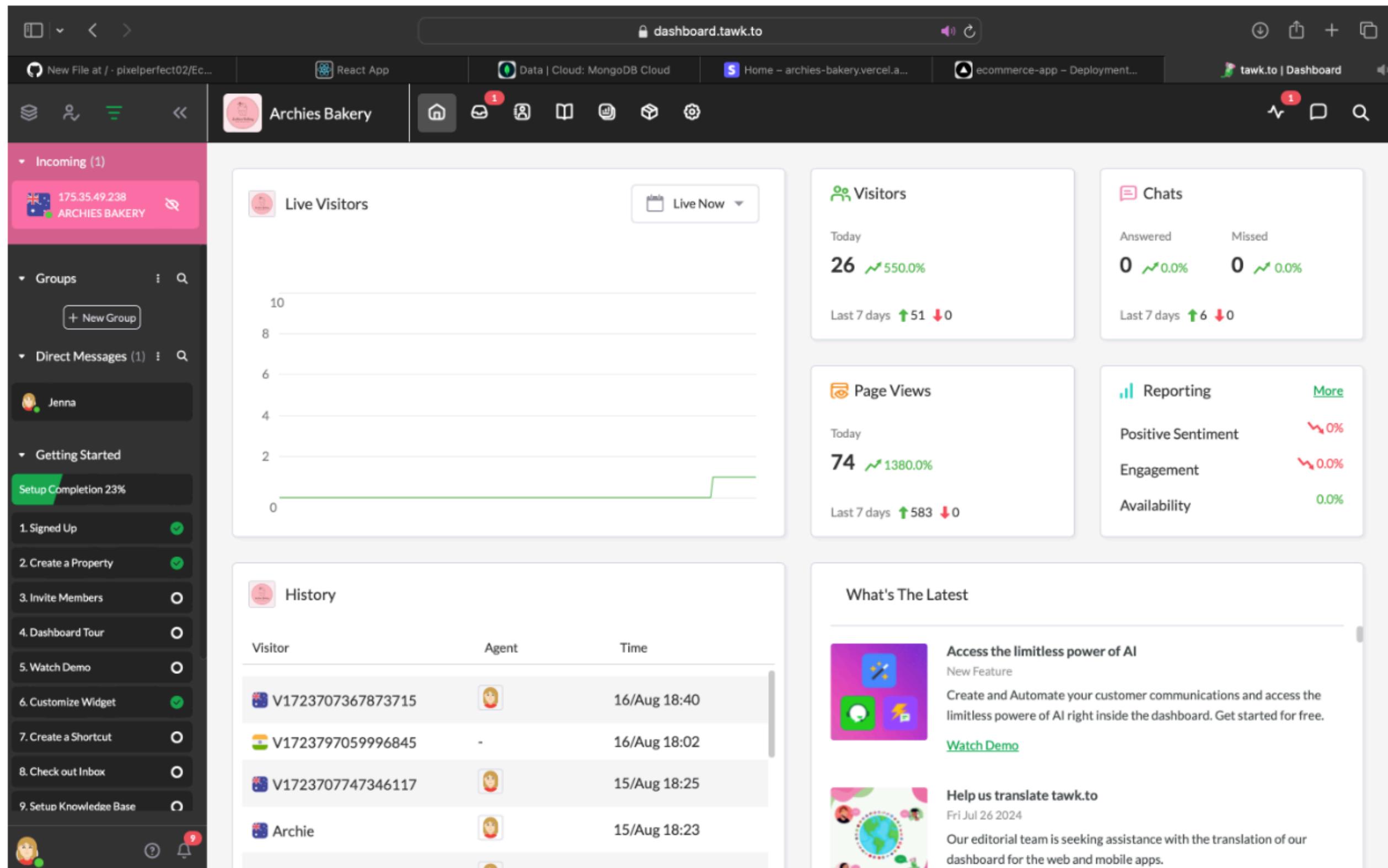


## PROJECT 04 | E-COMMERCE APP

### Description:

An e-commerce app in React and Node.js using Stripe for payments, MongoDB Atlas for database and Tawk for Chatbot.

**Technologies & Tools:**  
 Programming Languages: JavaScript, HTML, CSS, Frameworks & Libraries: React.js, Node.js, Databases: MongoDB, Tools: GitHub, VS Code, Tawk, Stripe  
 Link: <https://ecommerce.vercel.app>



The TAWK App backend tracks key analytics for Archie's Bakery eCommerce business, including website visits, customer messages, and customer statistics.

The screenshot shows the MongoDB Atlas Data Services interface. On the left, a sidebar menu includes Project 0, Overview, DEPLOYMENT, Database (selected), SERVICES (Device & Edge Sync, Triggers, Data API, Data Federation, Atlas Search, Stream Processing, Migration), and SECURITY (Quickstart, Backup, Database Access, Network Access, Advanced). The main area displays the **test.orders** collection. It shows storage size (24KB), logical data size (807B), total documents (1), and index sizes (24KB). It includes tabs for Find, Indexes, Schema Anti-Patterns (0), Aggregation, and Search Indexes. A search bar for namespaces and a "Create Database" button are also present. The "orders" document is displayed with the following JSON structure:

```
_id: ObjectId('66c164f3998e0a096d3adb81')
email : "archieverma114@gmail.com"
pickupDate : 2024-08-18T03:04:39.608+00:00
pickupTime : 2024-08-18T03:04:39.608+00:00
totalAmount : 8
* cartItems : Array (2)
  * 0: Object
    id : "1"
    name : "Vanilla Delight"
    description : "A delightful vanilla cupcake topped with buttercream."
    price : 3.5
    image : "/static/media/logo.28dc8a7ec37b734e82a8.png"
  * 1: Object
    id : "3"
    name : "Strawberry Dream"
    description : "A soft strawberry cupcake with a fresh strawberry on top."
    price : 4.5
    image : "/static/media/logo.28dc8a7ec37b734e82a8.png"
  formattedItems : "Item: Vanilla Delight"
```

The MongoDB backend which stores customer orders and related statistics for Archie's Bakery website, securely managed through MongoDB Atlas.

Test mode

You're using test data. No real transactions will be processed.

archies-bakery.verc...

Search

Developers

Test mode



Home

Balances

Transactions

Customers

Product catalogue

Shortcuts

Payment Links

Identity

Products

Payments

Billing

Reporting

More

## Today

Gross volume

\$121.00

12:38 pm

Yesterday

\$67.50

12:00 am

Now, 12:38 pm

11:59 pm

## Your overview

Last 7 days

12 Aug–18 Aug

compared to

Previous period

Daily

+ Add

Edit

### Payments

Gross volume

\$754.00 \$0.00 previous period

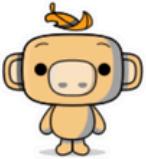
\$652.50

Net volume from sales

\$716.74 \$0.00 previous period

\$623.18



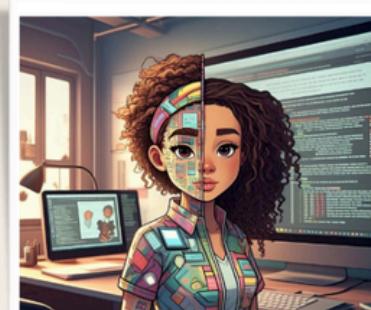


# Welcome.

Passionate about the intersection of design and technology, I bring a creative approach to front-end development, UI/UX design, and tech project management. With a Software Engineering (Honours) background, I excel at translating user needs into innovative solutions and collaborating across teams to drive tech strategy and creativity.

## designer

Product designer specialising in UI design and design systems



## <coder>

Front end developer who writes clean, elegant and efficient code

## PROJECT 02 | PORTFOLIO APP

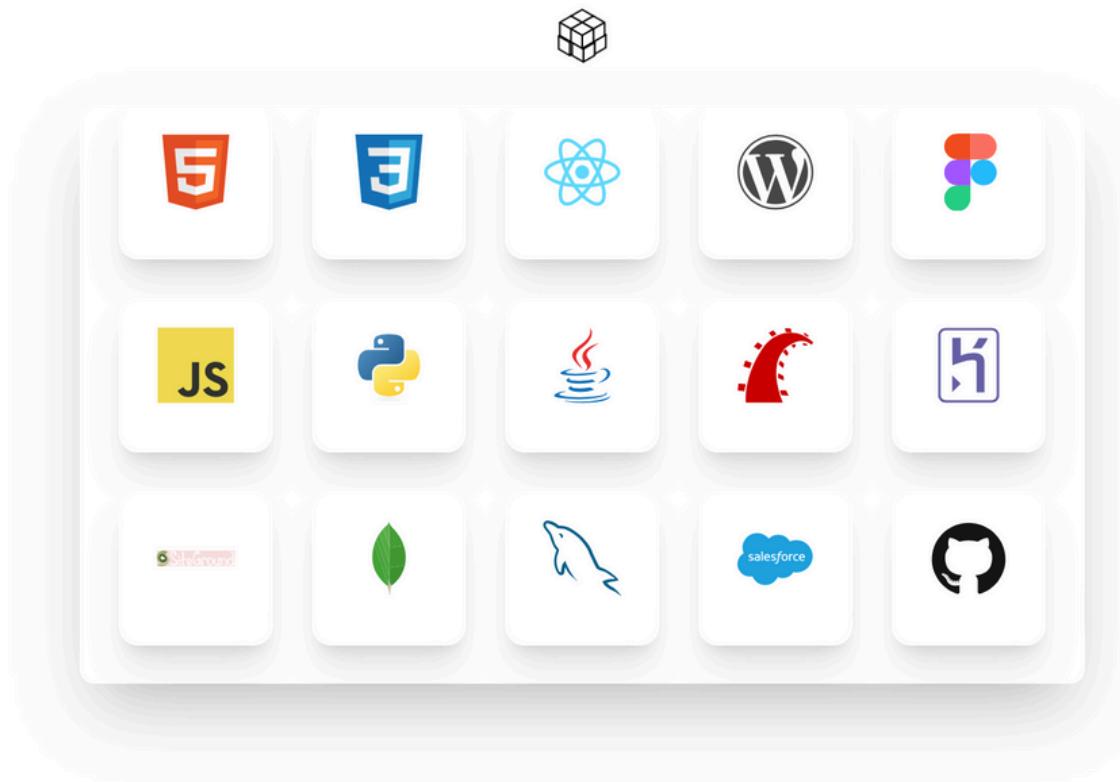
### Description:

A React Application developed to showcase my computer science journey.

Programming Languages: JavaScript, HTML, CSS, Frameworks c: React.js, Node.js,

Tools: GitHub, VS Code, FlippingBook, Lottie Animations, Formspre

Link: <https://archieverma-se-portfolio.vercel.app>

[ABOUT](#)[SKILLS](#)[RESUME](#)[PROJECTS](#)[CONTACT](#)

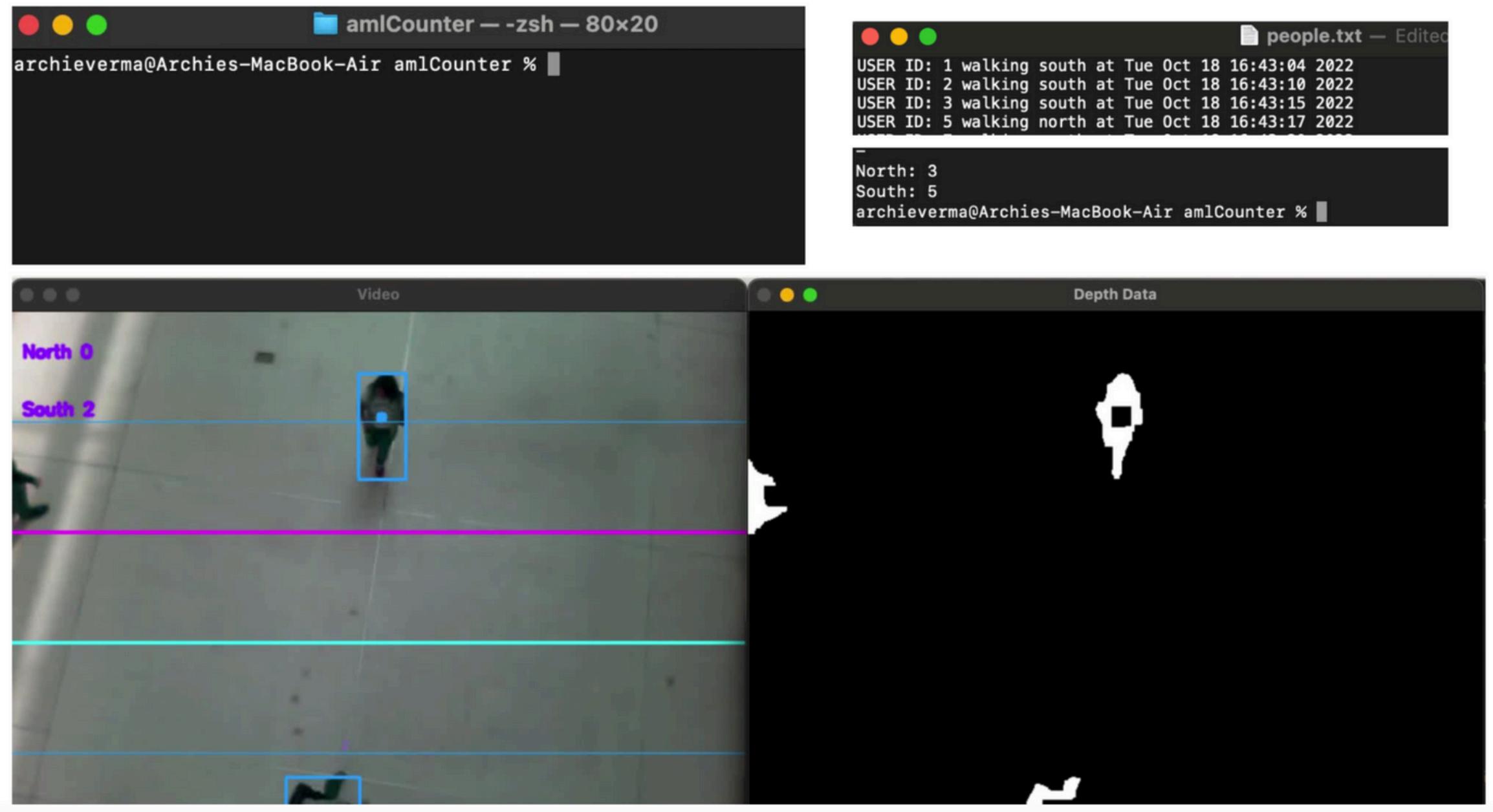
Email Address

Message

Submit

*My portfolio features icons of the technologies and tools I'm proficient in, along with contact form for potential employers to reach out to me.*

# APPLICATION RESULTS



## PROJECT 03 | AML COUNTER

### Description:

A machine learning and computer vision app that automates people counting from video footage, streamlining architectural audits by eliminating manual room checks—an idea inspired by my experience at Randstad.

### Technologies & Tools:

Programming Languages: Python, Tools: GitHub, VS Code



## PROJECT 04 | SECURITY QUESTION EVALUATOR

### Description:

The project was aimed to create a security question and answer evaluator, assessing their quality and the risk of compromise via OSINT, to aid users in selecting secure options and identifying potential vulnerabilities.

### Technologies & Tools:

Programming Languages: Ruby on Rails, Tools: GitHub, VS Code

## Contact Us

Ask for expert advice related to security question and answers.

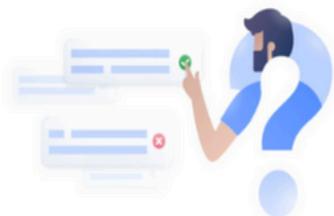
Full Name

Email

16/11/2020, 08:00 pm

Type your doubt here

SEND MESSAGE



FIRST NAME

LAST NAME

DOB

GENDER

ENTER YOUR WIKIPEDIA PROFILE URL

### SELECT YOUR CATEGORY AND SECURITY QUESTION

Choose Category ▾

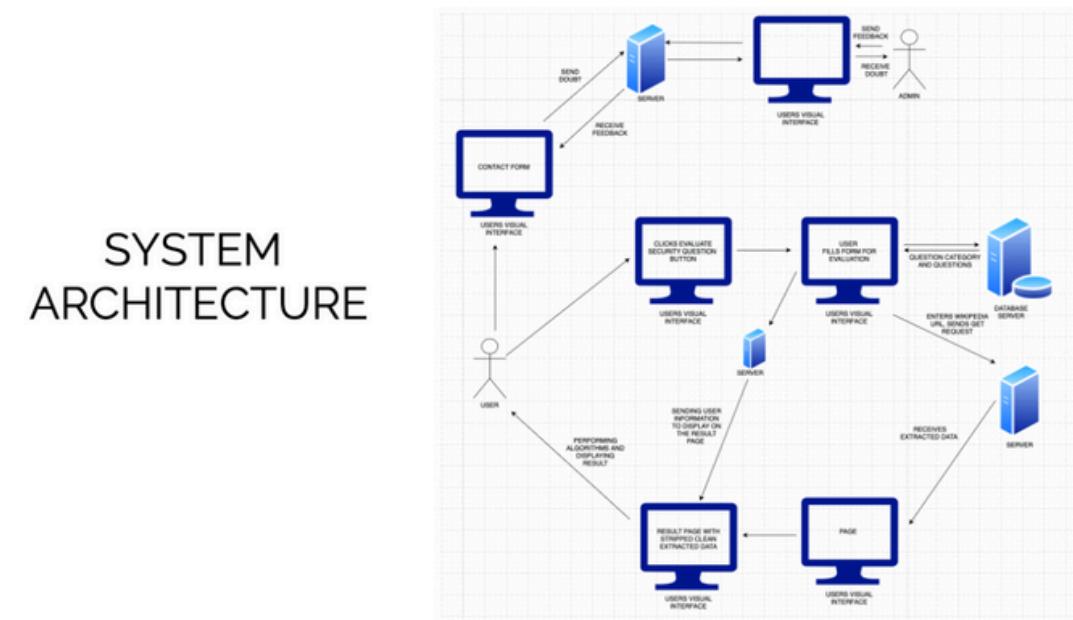
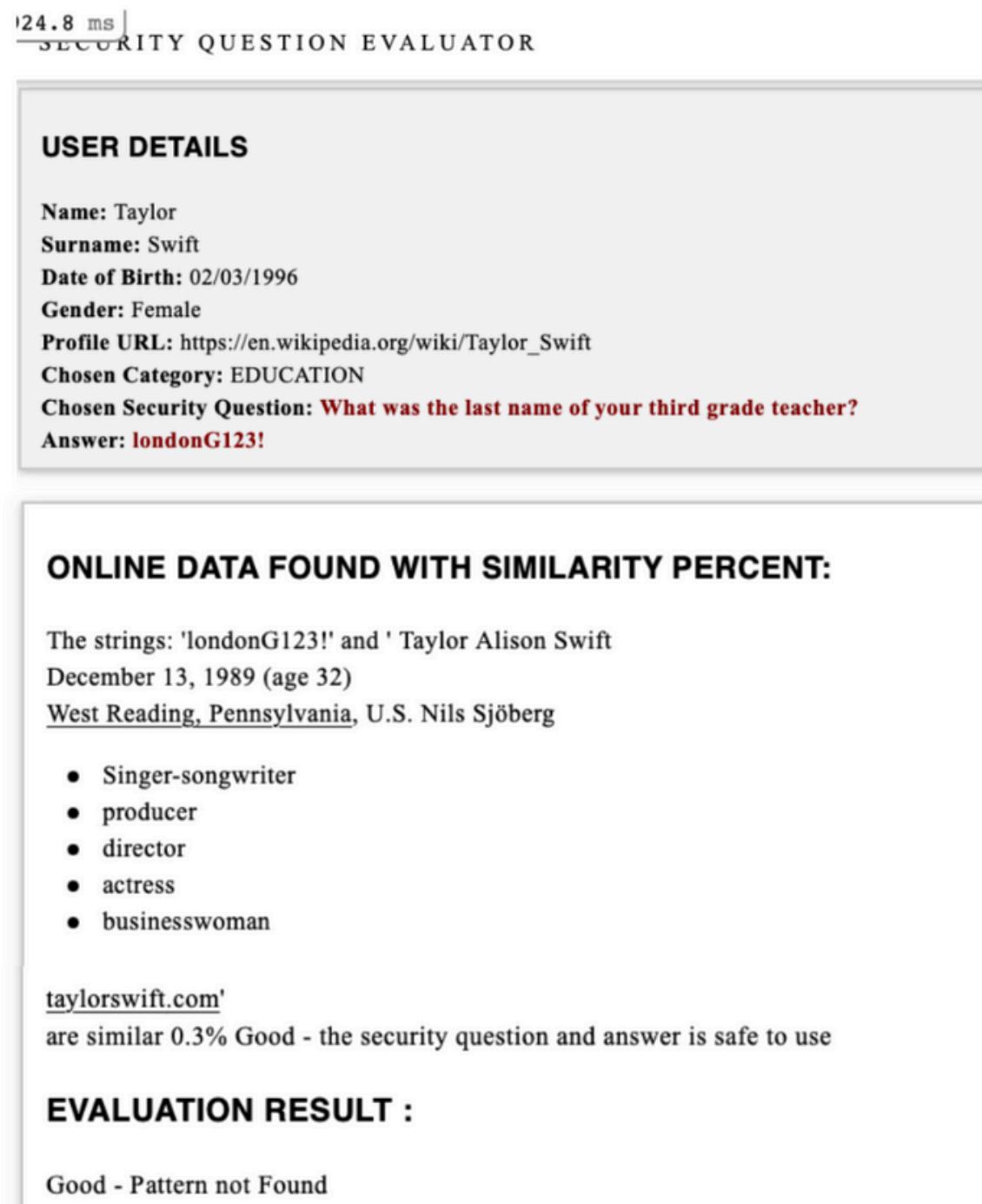
Choose Security Question ▾

TYPE YOUR ANSWER HERE

N e e d \_ h e l p ?

BEGIN  
EVALUATION

A user form that lets individuals select a security question and answer, then analyzes its safety by comparing the information found online, using algorithms to calculate a similarity percentage.





THE UNIVERSITY  
ofADELAIDE

# SECURITY QUESTION EVALUATOR

## Introduction

Security question is one of the common techniques implemented by many organisations to assist users in a self-help password recovery process. The concept of security question builds on the assumption that the questions are personal and only the user is likely to know the answer. In practice, however, the answers to the questions may be easily sought online or deducted.

As an example, during the 2008 United States presidential election campaign, Vice President candidate Sarah Palin's personal email account was hacked. The hacker, David Kermell, successfully recovered her account password by answering her security question using publicly available information.

## Motivation

It is necessary to bring to light the weakness of security questions and to devise a strategy for enhancing the usefulness of these questions. We have built a system that will guide the user through the process of setting up a more secure question and answer.

## Acknowledgement

We would like to thank Eddy Cheung, Asangi Joytikala, Triet Le and Neil Addleton for their support throughout the duration of our project.

## Design and Solution

### 5 Criteria



The diagram illustrates the relationships between five evaluation criteria. It shows pairs of criteria connected by double-headed arrows, indicating they are interrelated:

- Consistency ↔ Memorability
- Reversibility ↔ Uniqueness
- Uniqueness ↔ Randomness

### 2 Modules

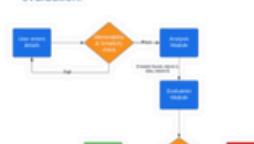


```
graph LR; A[DATA GATHERING] --> B[EVALUATION]
```

The flowchart shows a linear process: first, "DATA GATHERING" leads to "EVALUATION".

## Evaluation Process

- The application utilises Knutt-Morris-Pratt algorithm and Levenshtein distance as a method to compare, scan and analyse data.
- The flowchart below illustrates the steps for our evaluation.



```
graph TD; A[Input Data] --> B{Evaluate & Analyse}; B --> C[Evaluate Data]; C --> D{Check Results}; D --> E[Output Data];
```

The flowchart details the evaluation process:

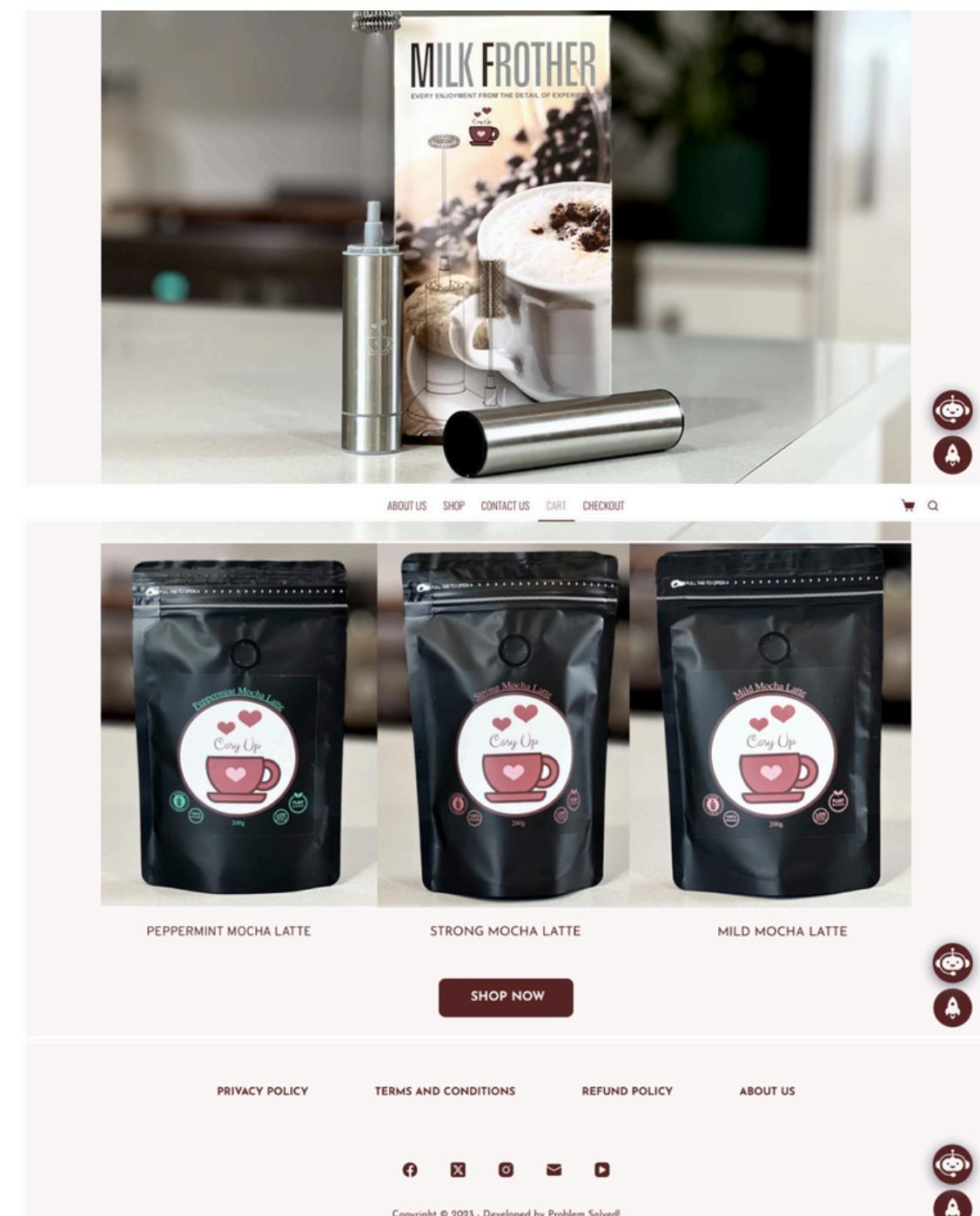
- Input Data
- Evaluate & Analyse (Decision point)
- Evaluate Data
- Check Results (Decision point)
- Output Data

Annotations indicate that the "Evaluate & Analyse" step involves "A large number of data sources" and "A large number of questions". The "Check Results" step involves "Compare and check results" and "Identify and remove false positives".

## Future Work

- Future enhancements to the application model may provide several social media alternatives for the user after reviewing the privacy and scraping permissions of social media apps.
- Enhancing context analysis to provide users more accurate results if their information is online.
- Setting up the app for more than simply security questions, including more advanced password recovery tools.

*Evaluation results and percentage match analysis conducted for SA Health clients as part of my Honours Project. The system architecture and project poster are available for reference.*



## PROJECT 05 | COSY UP

### Description:

An e-commerce venture, created this WordPress website hosted on SiteGround, with a GoDaddy domain.

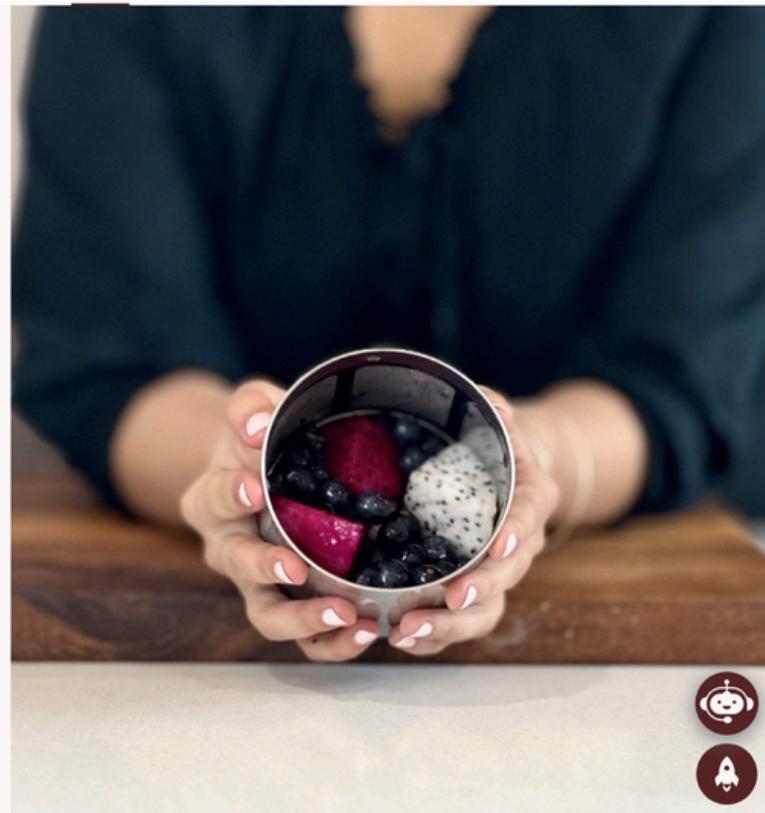
### Technologies & Tools:

Tools: SiteGround, WordPress, GoDaddy

Link: <https://cosyup.au>

# Mesmerising Features of the Cosy Up Multi-Maker

- Versatility at its best:** From luscious plant-based milks to rich soups, invigorating juices, and silky smoothies, the Multi-Maker is your comprehensive culinary partner.
- DIY Delight:** Revel in the pleasure of DIY, crafting your own nut milks, grain beverages, and beyond. Bid adieu to additives and welcome fresh, organic goodness.
- Mess-Free Magic:** Say goodbye to the tedious process of squeezing nuts and grains. With our innovative filter basket, making your favourite plant-based milk is a clean and hassle-free affair.
- Safety First:** With features like Boiled Dry Protection, Spill Protection, and Motor Overheating Protection, we prioritise your safety, ensuring a seamless operation every time.
- Power-Packed Performance:** Boasting a heating prowess of 800W and a motor capacity of 120W, the Multi-Maker ensures swift and proficient outcomes.



## Why the Cosy Up Multi-Maker is an Essential:

- Time & Money Saver:** Eliminate the need for multiple gadgets; the Multi-Maker is your all-in-one solution, conserving your time, finances, and kitchen space.
- Eco-conscious:** Diminish your environmental impact by crafting fresh plant-based concoctions at home, minimising waste and excess packaging.
- Nutrition Amplified:** Take charge of your intake. Opt for the freshest components and sidestep unnecessary additives, championing a healthier lifestyle.
- Declutter Your Kitchen:** At Cosy Up, we believe it's impractical to clutter your kitchen with gadgets that serve only one purpose. Simplify your culinary space with our Multi-Maker.
- Zero Waste, Maximum Taste:** Not only does our Multi-Maker ensure zero waste, but the leftover pulp from your plant-based milk ingredients can be transformed into cookies and other scrumptious delights.



SHOWING ALL 5 RESULTS

**Cosy Up Multi-Maker**  
\$342.00  
General, Multi-Maker

[Add to cart](#)

**COSY UP Milk Frother**  
\$43.50  
General, Milk Frother

[Add to cart](#)

**Handheld, Battery Operated - Travel Coffee Frother or Milk Foamer**

[Add to cart](#)

**COSY UP PEPPERMINT MOCHA LATTE**  
\$16.90  
General, Mocha Latte Mixes

[Add to cart](#)

Free Delivery On Orders Over \$45 Australia Wide!

**Cosy Up**  
AUS OWNED

ABOUT US SHOP CONTACT US **CART** CHECKOUT

PRODUCT	TOTAL
COSY UP Milk Frother \$43.50 Handheld, Battery Operated - Travel Coffee Frother or Milk Foamer	\$43.50
<a href="#">Remove item</a>	

**CART TOTALS**

Add a coupon	
Subtotal	\$43.50
Shipping	\$8.00
<input checked="" type="radio"/> Standard Shipping \$0.00	
<input type="radio"/> Express Shipping \$12.00	
<b>Total</b>	<b>\$51.50</b>
Including \$3.95 GST	

[Proceed to Checkout](#)

Free Delivery On Orders Over \$45 Australia Wide! [MY ACCOUNT](#)

**Cosy Up**  
AUS OWNED

ABOUT US [SHOP](#) CONTACT US [CART](#) [CHECKOUT](#)

**1. Contact information**

Already have an account? [Log in](#).

We'll use this email to send you details and updates about your order.

Email address

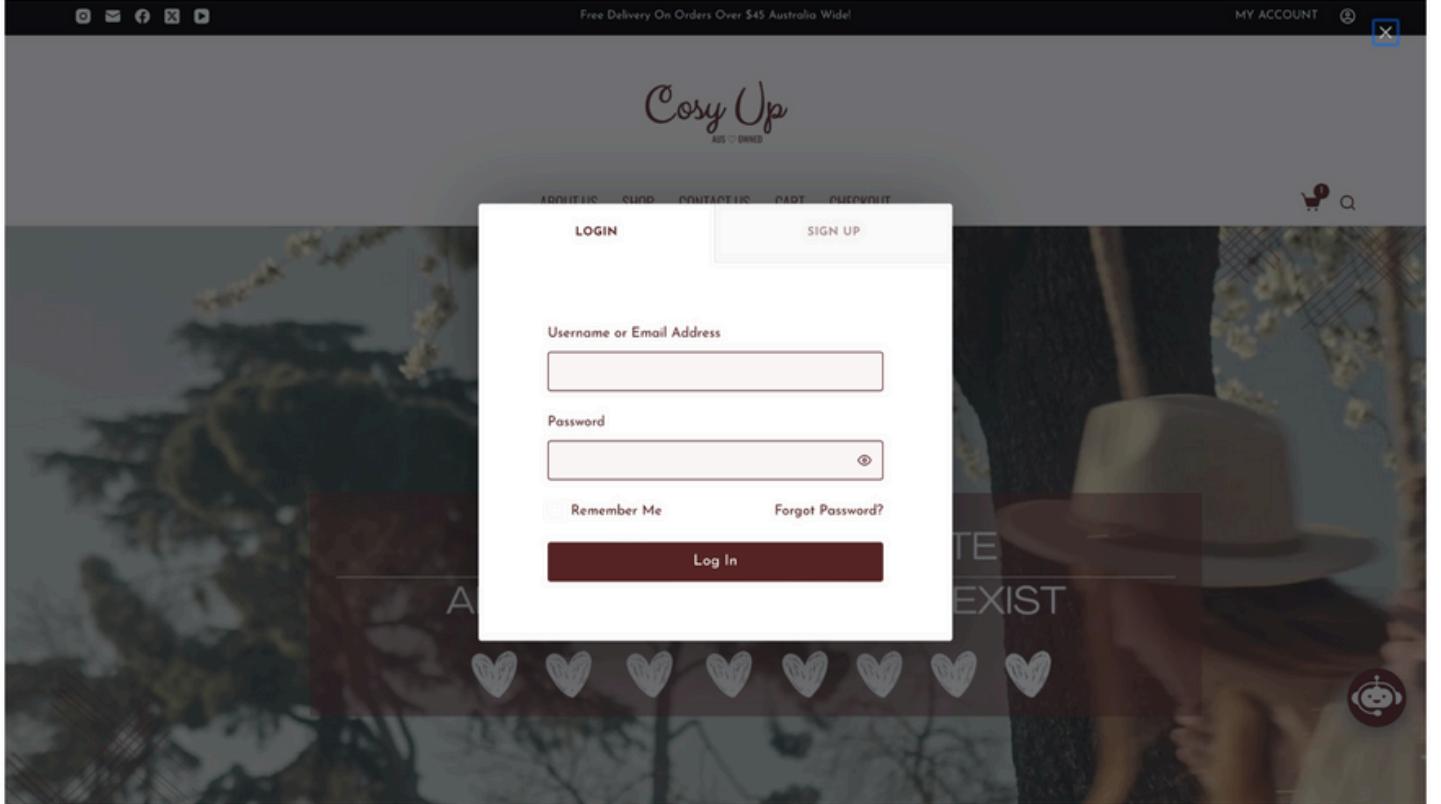
Create an account?

**2. Shipping address**

Enter the address where you want your order delivered.

First name  Last name

Free Delivery On Orders Over \$45 Australia Wide! [MY ACCOUNT](#)



**Cosy Up**  
AUS OWNED

[SHOP](#) [CONTACT US](#) [CART](#) [CHECKOUT](#)

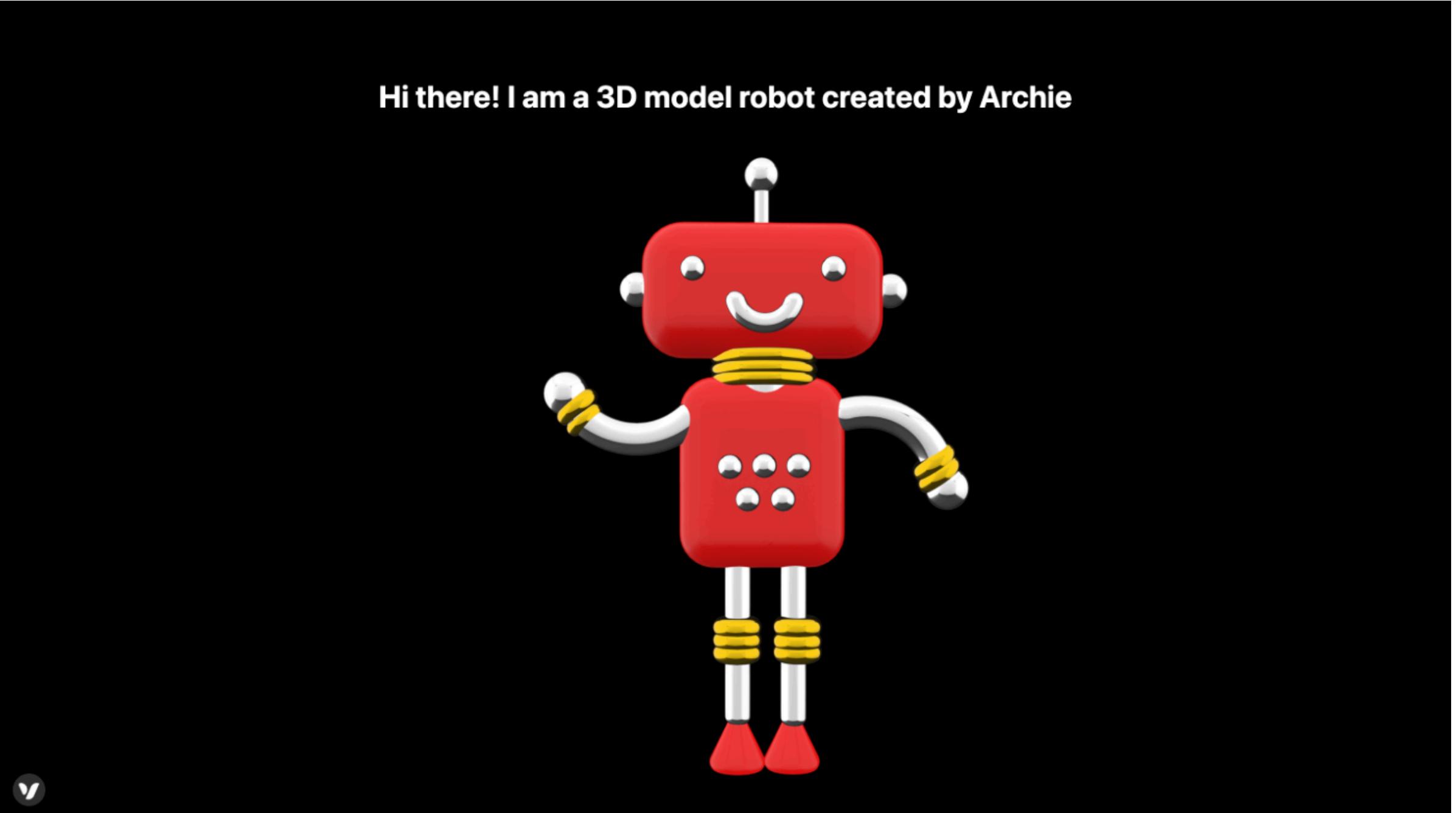
**EAMING SOUPS  
SH INGREDIENTS  
ONE TOUCH**

**Cooff** Christopher has joined the conversation

Welcome to COSY UP! May I know your name?!

Send a message [X](#)

**N**



## PROJECT 06 | 3D MODEL ROBOT

### Description:

A 3d model designed for fun on vectory, embedded in create js and deployed on vercel.

### Technologies & Tools:

Frameworks & Libraries: React, Tools: Github, Vector, Vercel,

Link: [3d-model-robot.vercel.app](https://3d-model-robot.vercel.app)



## PROJECT 07 | EMOJI LOVER MOBILE APP

### Description:

*This is a straightforward mobile app developed using Xcode and Swift, enabling users to effortlessly switch between various emojis.*

### Technologies & Tools:

Programming Languages: Swift  
Tools: Xcode, GitHub

```

localhost:8888/lab/workspaces/auto-r/tree/workflow.ipynb
Run Kernel Tabs Settings Help
workflow.ipynb
name
Last Modified
9 days ago
last month
8 months ago
23 days ago
21 hours ago
2 minutes ago
2 months ago
2 minutes ago
9 days ago
36 minutes ago
23 days ago
11 days ago
11 days ago
2 months ago
last month
8 days ago
18 days ago
last month
9 days ago
3 days ago
3 months ago
3 months ago
4 months ago
2 months ago
2 months ago
2 months ago
0 1 Python 3 (ipykernel) | Idle
[19]: display(HTML('<h1><center>Some Basic Visualisation of Jupyter Lab Workflow using Voila Dashboard</center></h1>'))
Some Basic Visualisation of Jupyter Lab Workflow using Voila Dashboard
[4]: display(HTML('<p><h3><center>This a a simple Dashboard made with Jupyter notebook & Voila</center></h3></p>'))
This a a simple Dashboard made with Jupyter notebook & Voila
[5]: display(HTML('<p><h4>The Dataset</h4></p>'))
The Dataset
[10]: data = [
    {'Name': 'John', 'Age': 30, 'City': 'New York'},
    {'Name': 'Alice', 'Age': 25, 'City': 'Los Angeles'},
    {'Name': 'Bob', 'Age': 35, 'City': 'Chicago'}
]

new_entry = {'Name': 'Eve', 'Age': 28, 'City': 'San Francisco'}
data.append(new_entry)

def display_data(data):
    for row in data:
        print(f"Name: {row['Name']}, Age: {row['Age']}, City: {row['City']}")

display_data(data)
Name: John, Age: 30, City: New York
Name: Alice, Age: 25, City: Los Angeles
Name: Bob, Age: 35, City: Chicago
Name: Eve, Age: 28, City: San Francisco
[22]: import matplotlib.pyplot as pyplot
names = [row['Name'] for row in data]
ages = [row['Age'] for row in data]
pyplot.figure(figsize=(8, 5)) # Optional: Set the figure size
pyplot.bar(names, ages)
pyplot.xlabel('Name')
pyplot.ylabel('Age')
pyplot.title('Age Distribution')
Mode: Edit Ln 6, Col 18 workflow.ipynb 1

```

## PROJECT 08 | JUPYTER WORKFLOW

### Description:

An illustrative project showcasing the utilization of Jupyter Notebook and voila was used to turn the Jupyter notebook into a standalone web application.

### Technologies & Tools:

Tools: Jupyter Notebook, Voila, GitHub

```
[Voila] Connecting to kernel 39d20a7d-eaee-4c95-b4f3-c6c8632a23e3.  
[Voila] Starting buffering for 39d20a7d-eaee-4c95-b4f3-c6c8632a23e3:9c748935-7ea2-4581-b01c-8820a2eda02a  
[Voila] Kernel shutdown: 39d20a7d-eaee-4c95-b4f3-c6c8632a23e3  
[Voila] Kernel started: 148183e3-8e67-48b6-aec5-493793cb0789  
[Voila] Connecting to kernel 148183e3-8e67-48b6-aec5-493793cb0789.  
[Voila] Starting buffering for 148183e3-8e67-48b6-aec5-493793cb0789:6c0ea2fc-016a-4b7e-a4a9-d914b9284cbc  
[Voila] Kernel shutdown: 148183e3-8e67-48b6-aec5-493793cb0789  
[Voila] Kernel started: 8c46de55-1913-40ee-b318-6a43a1767598  
[Voila] Connecting to kernel 8c46de55-1913-40ee-b318-6a43a1767598.  
[Voila] Starting buffering for 8c46de55-1913-40ee-b318-6a43a1767598:dccaf4f4-2fe3-4c7b-b093-986787feffffc
```

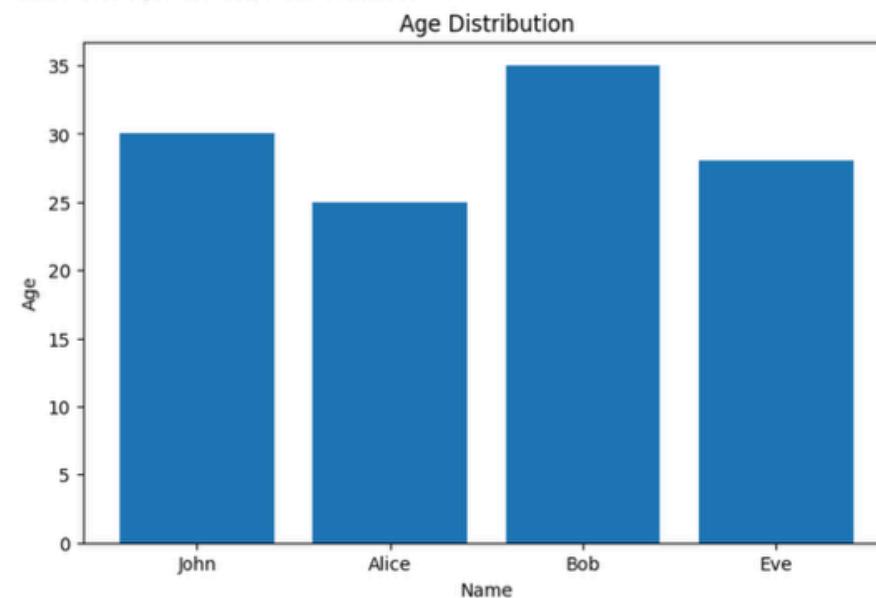
← → C ⓘ localhost:8866 ⚡ Relaunch to update :

## Some Basic Visualisation of Jupyter Lab Workflow using Voila Dashboard

This is a simple Dashboard made with Jupyter notebook & Voila

### The Dataset

```
Name: John, Age: 30, City: New York  
Name: Alice, Age: 25, City: Los Angeles  
Name: Bob, Age: 35, City: Chicago  
Name: Eve, Age: 28, City: San Francisco
```



localhost:8888/lab/workspaces/auto-r/tree/workflow.ipynb

Run Kernel Tabs Settings Help

workflow.ipynb

Name

Last Modified

39 minutes ago

23 days ago

11 days ago

11 days ago

2 months ago

last month

8 days ago

18 days ago

last month

9 days ago

3 days ago

3 months ago

3 months ago

4 months ago

2 months ago

2 months ago

2 months ago

3 months ago

3 months ago

2 months ago

2 months ago

2 months ago

2 minutes ago

52 seconds ago

3 days ago

[16]: `import folium`

*# Create a map centered at a specific location (e.g., Sydney, Australia)*

`m = folium.Map(location=[-33.8675, 151.2094], zoom_start=12)`

*# Display the map*

`m`

[16]:

Mode: Edit

Ln 7, Col 2

workflow.ipynb

2 months ago Python 3 (ipykernel) | Idle Mode: Edit 🔍 Ln 6, Col 18 workflow.ipynb 1 ⚡

localhost:8888/lab/workspaces/auto-r/tree/workflow.ipynb

Run Kernel Tabs Settings Help

name

Last Modified

- 9 days ago
- last month
- 8 months ago
- 23 days ago
- 21 hours ago
- 3 minutes ago
- 2 months ago
- 3 minutes ago
- 9 days ago
- 38 minutes ago
- 23 days ago
- 11 days ago
- 11 days ago
- 2 months ago
- last month
- 8 days ago
- 18 days ago
- last month
- 9 days ago
- 3 days ago
- 3 months ago
- 3 months ago
- 4 months ago
- 2 months ago
- 2 months ago
- 2 months ago
- 2 months ago

workflow.ipynb X +

Code Notebook Python 3 (ipykernel)

```
print(f"Name: {row['Name']}, Age: {row['Age']}, City: {row['City']}")  
display_data(data)  
Name: John, Age: 30, City: New York  
Name: Alice, Age: 25, City: Los Angeles  
Name: Bob, Age: 35, City: Chicago  
Name: Eve, Age: 28, City: San Francisco
```

[22]:

```
import matplotlib.pyplot as pyplot  
names = [row['Name'] for row in data]  
ages = [row['Age'] for row in data]  
pyplot.figure(figsize=(8, 5)) # Optional: Set the figure size  
pyplot.bar(names, ages)  
pyplot.xlabel('Name')  
pyplot.ylabel('Age')  
pyplot.title('Age Distribution')  
pyplot.show()
```

Age Distribution

Name	Age
John	30
Alice	25
Bob	35
Eve	28

Mode: Edit 🔍 Ln 6, Col 18 workflow.ipynb 1 ⚡

# Thank you!

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