

Minutes

Full Stack Web Development for AI Application

Meeting No. 13

Location	Swinburne Hawthorn Campus Room EN401
Date & Time	Tuesday, October 02, 2024 8:30am

Contributors	Henry Richardson Matthew Cross Seth Kalantzis	Meeting Facilitator Secretary
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New Items

Item	Discussion Points
New project with new technologies. <i>Owner: Henry</i> <i>Deadline: n/a</i>	<ul style="list-style-type: none">Discussion held to gauge everyone's currently abilities with React and FastAPI. Discovered that Matthew has some basic React knowledge, but otherwise the team is unfamiliar with these technologies.Decision to delay working on tasks until the team has had a chance to cover some of the lecture material and workshop tasks.Likely won't begin working on project until mid-October.

Action Items

Action Item	Owner	Deadline
<ul style="list-style-type: none">Begin to think about which parts of the project we'd each like to take the lead on.	All	Oct 09, 2024

Next Meeting

Location	Swinburne Hawthorn Campus Room EN401
Date & Time	Tuesday, October 09, 2024 8:30am

Henry Richardson

Henry Richardson
Meeting Facilitator

Matthew Cross

Matthew Cross
Secretary

Seth Kalantzis

Seth Kalantzis
Attendee

Minutes

Full Stack Web Development for AI Application

Meeting No. 14

Location	Swinburne Hawthorn Campus Room EN401
Date & Time	Tuesday, October 09, 2024 8:30am

Contributors	Henry Richardson Matthew Cross Seth Kalantzis	Meeting Facilitator Secretary
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Action Items from Previous Meeting

Item	Discussion Points
Begin to think about which parts of the project we'd each like to take the lead on. <i>Owner: Matthew</i> <i>Status: Completed</i>	<ul style="list-style-type: none">Matthew is most excited about Frontend – and will take the lead on that.Henry is done some introductory research on FastAPI, and will likely take ownership of the backend.Seth has conducted introductory research on different libraries for visualising graphs in React. Namely – d3 and plotly.

New Items

Item	Discussion Points
Initial Design <i>Owner: Matthew</i> <i>Deadline: October 16, 2024</i>	<ul style="list-style-type: none">Since the team has changed topics since assignment one, a new website design is required. Matthew will complete sketches / mock-ups during the week for review in the next meeting.
Select of AI Models <i>Owner: Seth</i> <i>Deadline: October 16, 2024</i>	<ul style="list-style-type: none">Discussion around whether to include all four AI models developed in assignment two into the website, or to focus on a specific model and develop multiple visualisations for it.Decided to attempt integrating all four models. People will work on the same models they developed in assignment two for now, and come back with an initial attempt at visualisation next week.

Action Items

Action Item	Owner	Deadline
• Develop a mock-up for the website	Matthew	Oct 16, 2024
• Attempt model integration with a react library	All	Oct 16, 2024

Next Meeting

Location	Swinburne Hawthorn Campus Room EN401
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Date & Time	Tuesday, October 16, 2024 8:30am
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Henry Richardson
Henry Richardson
Meeting Facilitator

Matthew Cross
Matthew Cross
Secretary

Seth Kalantzis
Seth Kalantzis
Attendee

Minutes

Full Stack Web Development for AI Application

Meeting No. 15

Location	Swinburne Hawthorn Campus Room EN401
Date & Time	Tuesday, October 16, 2024 8:30am

Contributors	Henry Richardson Matthew Cross Seth Kalantzis	Meeting Facilitator Secretary
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Action Items from Previous Meeting

Item	Discussion Points
Develop a mock-up for the website <i>Owner: Matthew</i> <i>Status: Completed</i>	<ul style="list-style-type: none">Home / Visualisation and About page mock-ups completed in Canva.Notes one design:<ul style="list-style-type: none">Add sliders for changing the different pollutant values.Add a text section describing the output of each visualisation – Make it dynamic so that values are updated in real time.Otherwise, good. Team happy with general design.
Attempt model integration with a react library <i>Owner: All</i> <i>Status: In-Progress</i>	<ul style="list-style-type: none">All team members made preliminary attempts at modelling.Henry developed a scatterplot for linear regression, but found that the visualisation wasn't appropriate as we transition away from validation to prediction. Will look into different graphing options before the next meeting.Matthew complete an initial 3D scatterplot. Need to define which cluster points belong more clearly to. Need a way to plot a predicted point onto the graph as well.Seth created a gradient line visualisation for KNN. Team ultimately decided that the visualisation was not appropriate for the data being displayed. Seth will attempt integrating the data into a scatterplot before the next meeting.Arima-Time series not attempted yet.

New Items

Item	Discussion Points
Decide on which data to use <i>Owner: Seth</i>	<ul style="list-style-type: none">For assignment 2, 4 different datasets were generated representing gendered or genderless data, aggregated by either month or year.Decided to use only a single dataset in the website to make the website more user-friendly and intuitive.Decision was made to proceed with the annual genderless dataset, as it offered to most options for different health statistics to analyse.

Action Items

Action Item	Owner	Deadline
• Update mock-ups	Matthew	Oct 23, 2024
• Develop new Linear Regression visualisation	Henry	Oct 23, 2024
• Improve K-Mean visualisation	Matthew	Oct 23, 2024
• Develop a new KNN visualisation	Seth	Oct 23, 2024

Next Meeting

Location	Swinburne Hawthorn Campus Room EN401
Date & Time	Tuesday, October 23, 2024 8:30am

Henry Richardson
Henry Richardson
Meeting Facilitator

Matthew Cross
Matthew Cross
Secretary

Seth Kalantzis
Seth Kalantzis
Attendee

Minutes

Full Stack Web Development for AI Application

Meeting No. 16

Location	Swinburne Hawthorn Campus Room EN401
Date & Time	Tuesday, October 23, 2024 8:30am

Contributors	Henry Richardson Matthew Cross Seth Kalantzis	Meeting Facilitator Secretary
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Action Items from Previous Meeting

Item	Discussion Points
Update mock-ups <i>Owner: Matthew</i> <i>Status: Completed</i>	<ul style="list-style-type: none">Design mock-ups updated to include sliders and text description sections.Team signed off on initial design
Develop new Linear Regression visualisation <i>Owner: Henry</i> <i>Status: Completed</i>	<ul style="list-style-type: none">Decided on a Radar Chart for visualisation.Demonstrated a working example, and the results are promising.Will look into normalising the data so that PM10 values don't dominate the chart.
Improve K-Mean visualisation <i>Owner: Matthew</i> <i>Status: Completed</i>	<ul style="list-style-type: none">Mesh data added around the clusters in the K-Mean visualisations.
Develop a new KNN visualisation <i>Owner: Seth</i> <i>Status: In-Progress</i>	<ul style="list-style-type: none">Seth had begun to rework the KNN model to improve it's accuracy and appropriateness before working on visualisation.Discussion around the importance of this – since only visualisations are being assessed this assignment, not model accuracy.Decision made that the way the model worked was sufficient, and didn't require reworking.

New Items

Item	Discussion Points
Integration of Backend <i>Owner: Henry</i> <i>Deadline: October 30, 2024</i>	<ul style="list-style-type: none">We found that each of us had developed a slightly different solution for the backend of our visualisations.These methods would need to be analysed and integrated for consistency in the final web application.Connecting visualisation components to the backend with multiple different methods not a viable option if we wanted a dynamic and integrated front end.Henry to work on combining and simplifying the backend.Matthew to work on creating a consistent frontend interface for all components.

Action Items

Action Item	Owner	Deadline
• Integrate backend	Henry	Oct 29, 2024
• Develop consistent frontend visualisations	Matthew	Oct 29, 2024
• Begin building out all frontend components	Matthew	Oct 29, 2024
• Further develop KNN model	Seth	Oct 29, 2024

Next Meeting

Location	Swinburne Hawthorn Campus Room EN401
Date & Time	Tuesday, October 29, 2024 8:30am

Henry Richardson

Henry Richardson
Meeting Facilitator

Matthew Cross

Matthew Cross
Secretary

Seth Kalantzis

Seth Kalantzis
Attendee

Minutes

Full Stack Web Development for AI Application

Meeting No. 17

Location	Swinburne Hawthorn Campus Room EN401
Date & Time	Tuesday, October 29, 2024 8:30am

Contributors	Henry Richardson Matthew Cross Seth Kalantzis	Meeting Facilitator Secretary
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Action Items from Previous Meeting

Item	Discussion Points
Integrate backend <i>Owner: Henry</i> <i>Status: Completed</i>	<ul style="list-style-type: none">AI models all updated for consistent variable naming, interface, etc.Decided to make the interface for each model consistent to simplify front end processes.Back end completed, baring minor changes to facilitate frontend.All requests tested and validated via Postman.
Develop consistent frontend visualisations <i>Owner: Matthew</i> <i>Status: In-Progress</i>	<ul style="list-style-type: none">Visualisation container and components for linear regression and k-means models developed.Had been working with Henry throughout the week, so the integration with backend was successful. Tested with team.Still need to integrate with KNN model.
Begin building out all frontend components <i>Owner: Matthew</i> <i>Status: In-Progress</i>	<ul style="list-style-type: none">Website functional, with most required components built.Will require polishing over the next week to ensure the application resizes effectively to different media screen sizes, and to identify and fix any bugs.
Further develop KNN model <i>Owner: Seth</i> <i>Status: Completed</i>	<ul style="list-style-type: none">KNN model completed.Model to be integrated with the rest of the project over the coming week.

New Items

Item	Discussion Points
Work left on Frontend <i>Owner: Matthew</i> <i>Deadline: Nov 02, 2024</i>	<ul style="list-style-type: none">Integrate KNN model.Finalise frontend.Conduct extensive testing to identify and fix any bugs.Add in a few more interactive elements to make the website more user friendly.Ensure code is well commented.
Work left on Backend <i>Owner: Henry</i> <i>Deadline: Nov 02, 2024</i>	<ul style="list-style-type: none">Integrate KNN model.Finalise backend.Conduct extensive testing to identify edge cases.

	<ul style="list-style-type: none">• Ensure code is well commented.
Report writing <i>Owner: Seth, Henry</i> <i>Deadline: Nov 02, 2024</i>	<ul style="list-style-type: none">• Begin work on report. Outlining requirements and tasks, and completing sections.• Begin work on README.md
Video <i>Owner: Seth, Henry</i> <i>Deadline: Nov 02, 2024</i>	<ul style="list-style-type: none">• Team to work on scripting the video together.• Henry to film video.• Seth to edit video and upload to YouTube.

Action Items

Action Item	Owner	Deadline
<ul style="list-style-type: none">• Finalise Frontend	Matthew	Nov 02, 2024
<ul style="list-style-type: none">• Finalise Backend	Henry	Nov 02, 2024
<ul style="list-style-type: none">• Report Writing	All	Nov 02, 2024
<ul style="list-style-type: none">• Film Video	Henry	Nov 03, 2024
<ul style="list-style-type: none">• Edit and Upload Video	Seth	Nov 03, 2024

Next Meeting

Location	Swinburne Hawthorn Campus Room EN401
Date & Time	Saturday, November 02, 2024 2:00pm

Henry Richardson
Henry Richardson
Meeting Facilitator

Matthew Cross
Matthew Cross
Secretary

Seth Kalantzis
Seth Kalantzis
Attendee

Minutes

Full Stack Web Development for AI Application

Meeting No. 18

Location	Swinburne Hawthorn Campus Room EN401
Date & Time	Saturday, November 02, 2024 2:00pm

Contributors	Henry Richardson Matthew Cross Seth Kalantzis	Meeting Facilitator Secretary
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Action Items from Previous Meeting

Item	Discussion Points
Finalise Frontend <i>Owner: Matthew</i> <i>Status: Completed</i>	<ul style="list-style-type: none">Frontend completed.Demonstrated and tested, team happy.
Finalise Backend <i>Owner: Henry</i> <i>Status: Completed</i>	<ul style="list-style-type: none">Backend completed.Demonstrated and tested, team happy.
Report Writing <i>Owner: Seth, Henry, Matthew</i> <i>Status: In-Progress</i>	<ul style="list-style-type: none">Report started and all sections outlined.Final touches still required, but report is looking good.
Film Video <i>Owner: Henry</i> <i>Status: In-Progress</i>	<ul style="list-style-type: none">Now that the website is finalised, Henry will begin filming video this afternoon.Team collaborated on scripting and points to cover in the video.
Edit Video <i>Owner: Seth</i> <i>Status: In-Progress</i>	<ul style="list-style-type: none">Video editing estimated to take a couple of hours. Seth will complete as soon as he receives raw clips from Henry.

New Items

Item	Discussion Points
Final Meeting <i>Owner: All</i>	<ul style="list-style-type: none">Reflection on the work completed this semester.Everyone very happy with the team and the work that has been contributed.

Action Items

Action Item	Owner	Deadline
• Finish Report	All	Nov 03, 2024
• Film Video	Henry	Nov 03, 2024
• Edit Video	Seth	Nov 03, 2024
• Submit	Matthew	Nov 03, 2024

Henry Richardson
Henry Richardson
Meeting Facilitator

Matthew Cross
Matthew Cross
Secretary

Seth Kalantzis
Seth Kalantzis
Attendee