

# STEC ResearchApp

## Wired Wires Experts' Final Report

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### Features Implemented:

#### Backend

- Stable connection created
- Able to create, delete, and update forms

#### Frontend

- Student Dashboard
  - Can sign in and register using GGC email
  - Can only submit and fill out forms
  - Forms have required entry indicators and change when complete
- Admin Dashboard
  - Can only access admin-related material
  - Can view all submitted forms
  - Forms grouped by form number and order by latest submitted
  - Filter forms by status and advisor name
  - Approve, deny, delete, and update forms
  - Copy key for faculty use
- Faculty Dashboard
  - Ability to sign and date form by using a key

## **Features Remain to be Done:**

- Better differentiate between student, faculty, and admin accounts
- Allow faculty login/registration
- Allow students to view their forms
- Faculty and admin ability to create/upload projects
- Landing and previous projects page to have dynamic project information
- Admin ability to archive forms
- Refresh advisor dropdown automatically
- Include email verification and password reset functionality
- Include content from STEC coordinator into placeholder pages
- Once the faculty signs a form from the key, an email should be sent to that specified student saying that their submission was approved.

## **Known Issues:**

- The “Login” button doesn’t change to “Logout” immediately upon logging in
- Adjustments to the responsiveness for the mobile side (all pages except: admin and faculty)
- If logged in to the student page, there’s no way back if you leave the page and try to go back

Project Flyer:



The project flyer features a green and white abstract background with geometric shapes like circles and triangles. At the top, the text "Georgia Gwinnett College" is displayed in a large, bold, dark green font. Below it, a dark green horizontal bar contains the title "STEC ResearchApp" in a large, white, sans-serif font. Underneath the title, the text "By: Wired Wires ‘Experts’" is written in a smaller, white, sans-serif font. The bottom left corner of the flyer features the Georgia Gwinnett College logo, which is a stylized grey and white horse head.

### Team Members

ANDRÉS ALMARAZ

MIRANDA DARLINGTON

JAFET LEON-PEREZ

JEANCARLO MASCIOTTI

Cut time in your STEC registration process!!!

Create Fall 2022 - November 11

**Demo Screencast:**

The demo screencast of features that the team has implemented can be found on YouTube with the following link:

<https://www.youtube.com/watch?v=Z97aJVH2VHI>

## **Team Members:**



Name: Jafet Leon-Perez

Roles:

- Programmer 20%
- Code Architecture/Lead Programmer 60%
- Documentation Lead 20%



Name: Jeancarlo Masciotti

Roles:

- Programmer 20%
- UI/UX 40%
- Team Manager 40%



Name: Andres Almaraz

Roles:

- Lead Data Modeling 60%
- Programming 20%
- Client Liaison 20%



Name: Miranda Darlington

Roles:

- Programming 20%
- UI/UX lead 40%
- Testing Lead 40%

## **Client: Dr. Wendy Dustman**



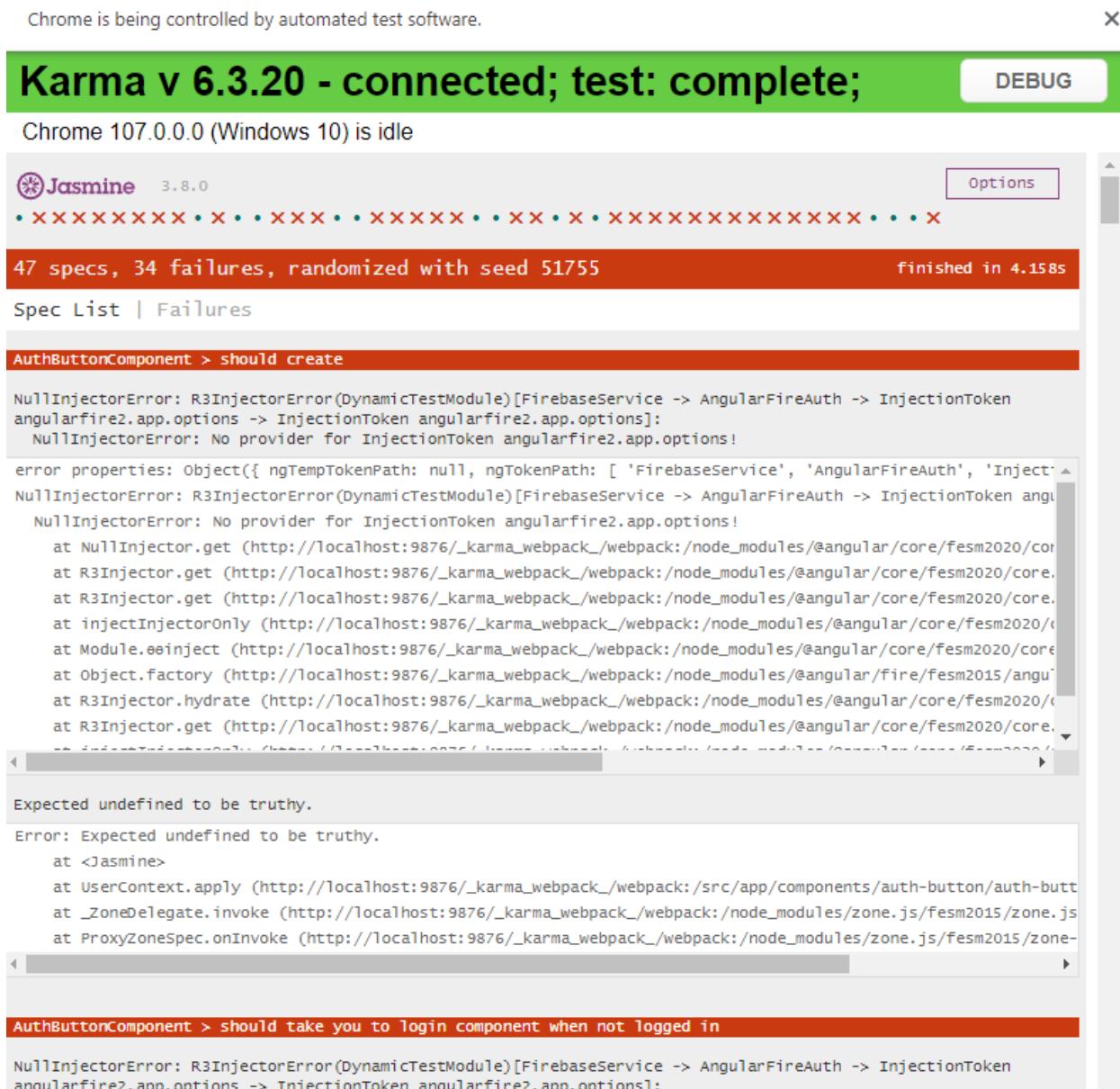
Dr. Wendy A. Dustman is an associate professor of biology and biochemistry here at Georgia Gwinnett College. She has a doctorate in microbiology at the University of GA and a bachelor's in biology at the University of Indiana. She has been serving as the School of Science and Technology's coordinator for the STEC program in undergraduate research since 2018.

### **Project Abstract:**

For our Software Development II project, we have chosen to work on the Research App web application. Its main purpose is to help students find a research project of their liking and sign up for them using online forms. These projects can be created and edited by the GGC faculty and the STEC coordinator. Both can also view, search, and filter out submitted/in progress forms with the coordinator having more control in the app like having access to all forms and the ability to accept, deny, and delete any form.

## Testing:

Unit Testing was to be done using Karma and Jasmine frameworks to generate live updates on test success/failure. As of Fall 2022, there was an error discovered within the majority of the tests where the unit tests will need to be rewritten to get them to run correctly. Some tests still need to be implemented but are there to show the next team what tests need to be done within the login, register, and all form creation and submission components. All other tests are to see if that specific component was correctly created.



## **Data Model:**

The technologies used for our data and roles were Firebase for user authentication and Firestore for our cloud database. They are a free service with limitations offered by Google. When the user registers, they are left as default which we shall call student. For the admin, they have registered already and be stated as admin ahead of time. With this, we can differentiate between the student and the admin.

However, due to time constraints we were unable to create the faculty role. So the faculty are treated as students until that is improved.

Moving on, the students are only able to fill out the STEC forms. When the forms are submitted, they are then created as a document and added to the appropriate STEC forms category in the database. Then the admin is the only one given access to approving, denying, editing, and deleting the forms that have been submitted. They can also copy a key for that form for the faculty to use. Once the faculty role is improved, the key won't be needed. The admin is also able to filter the forms depending on status and primary advisor. When this is done, the database searches for all the forms that meet the value searched. The forms that qualified are then displayed for the admin to view. Even though the faculty role was not created, the faculty was intended to be able to create and update the forms.

## **Documentation:**

Any documentation for the STEC ResearchApp will be found under the “docFall-2022” folder in the GitHub repository at:

<https://github.com/GGC-SD/STEC4500-ResearchApp>

## **Focus Group Survey Results:**

From the survey results, we saw that many people praised the layout of the system as many said it was easily readable and organized. Most of the “negative” comments about the system were caused by color usage and having a simple or “bland” look. Since the system will be used by the school in the future, it needs to be representative of the school both in terms of colors and a professional look. A recurring suggestion was minor cosmetic changes including minimizing the border thickness on the elements to create a more modern look. In terms of functionality, the system gained a huge leap in getting closer to a finished product with the current functions gaining approval from all the surveys.

## **Software Usage License:**

The MIT License

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# Intellectual Property Terms:

## Intellectual Property Agreement

This Intellectual Property Contribution and Assignment Agreement (the "Agreement") is made as of \_\_ November 2022 by and between the members of the Wired Wires Experts team (the "Company"), Dr. Wendy Dustman (the "Partner"), and Dr. Anca Doloc-Mihu (the "Sponsor").

All parties have agreed that member Jeancarlo Masciotti will receive a share of 19%, member Miranda Darlington will receive a share of 19%, member Andres Almaraz will receive a share of 21%, and member Jafet Leon-Perez will receive a share of 19% totaling to 78% of intellectual claim for the team. The Partner, Dr. Wendy Dustman will receive a share of 10% of intellectual claim. Finally, the Sponsor, Dr. Anca Doloc-Mihu will receive a share of 12% of intellectual claim. (Intellectual claim includes entire rights, title, and interest in and to any and all of the properties that exist as of the date hereof.)

Jeancarlo Masciotti

Full Name



Signature

11/03/2022

Date

Jafet Leon-Perez

Full Name



Signature

11/03/2022

Date

Miranda Darlington

Full Name



Signature

11/03/2022

Date

Andres Almaraz

Full Name



Signature

11/03/2022

Date

Wendy A. Dustman

Full Name



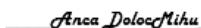
Signature

11/4/2022

Date

Anca Doloc-Mihu

Full Name

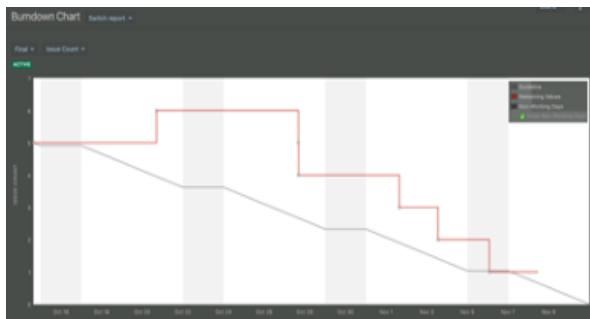


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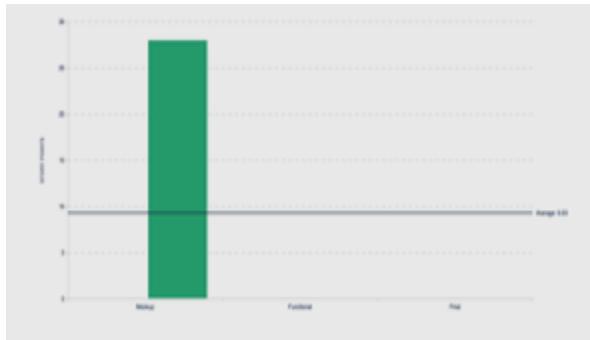
11/4/2022

Date

## Velocity Charts:



After our first iteration, we've managed to consistently have an ideal burndown chart for the second and third iterations. Most of the stories that were created were finished in a timely fashion.



Due to unfamiliarity with Jira, story points were not used in our second and third iterations. Instead, for measurement of difficulty, priorities were used.

## Closing Thoughts:

From the previous iteration of the ResearchApp to now, the progress has grown exponentially. The database to handle all of the user accounts and form submissions has been created and is fully operational. An admin dashboard has been created for the STEC Coordinator so they will have the ability to manipulate the forms as needed instead of relying on email responses. On the student side, the forms have been updated according to the new requirements, and assistive functions were added to help the student correctly complete the forms. Ad