

# CSS 545 A - Mobile Computing

## Final Submission

Professor Hansel Ong  
Raviteja Tanikella

## ATSPro

### The ATS Conquering Companion

#### Team Members:

Raviteja Tanikella

#### Project Summary:

ATSPro is a game-changing application designed to bridge the critical gap between resume building and landing your dream job. By leveraging Google Gemini Pro AI, ATSPro enhances your resume's compatibility with Applicant Tracking Systems (ATS), increasing your interview chances significantly. It not only helps in building ATS-friendly resumes but also provides tailored interview prep and deep insights into job applications.

#### Project Repository:

GitHub: [https://github.com/TVR28/ATSPro\\_Mobile\\_App](https://github.com/TVR28/ATSPro_Mobile_App)

Pull request: [https://github.com/TVR28/ATSPro\\_Mobile\\_App/pull/10/commits](https://github.com/TVR28/ATSPro_Mobile_App/pull/10/commits)

#### Does it accomplish the stated objective?

ATSPro effectively accomplishes its stated objective by enhancing resumes for both ATS compatibility and human recruiter appeal, providing personalized feedback, and preparing candidates for interviews. It is specifically designed to address the issue of resumes being filtered out by Applicant Tracking Systems (ATS) and failing to reach recruiters. The application aids job seekers by analyzing and refining their resumes to ensure they meet both the technical requirements of ATS and the qualitative expectations of human recruiters. By leveraging the advanced capabilities of Google Gemini Pro AI, ATSPro evaluates resumes against targeted job descriptions. This process involves:

- **ATS Compatibility Enhancement:** The app scans the resume for keywords, phrases, and formats that are known to be ATS-friendly. It ensures that these elements are

presented in a way that increases the likelihood of the resume passing through ATS filters.

- **Recruiter Appeal:** Beyond just ATS optimization, ATSPPro enhances the resume to appeal to human recruiters. This includes improving the overall readability, structuring the content to highlight achievements and skills effectively, and ensuring the language used matches that of the industry and role applied for.
- **Customized Feedback and Suggestions:** ATSPPro provides personalized feedback on how to improve resumes. This might include suggesting stronger action verbs, advising on the reorganization of sections for better impact, and identifying skills or accomplishments that are particularly relevant to the job description but may be underrepresented in the resume.
- **Interview Preparation Guide:** Provides tips on how interview questions can be asked for a particular role. Provides sample questions and suggestions on answering these different questions in the best way highlighting the candidates expertise.

By addressing these key areas, ATSPPro significantly increases a job applicant's chances of their resume not only being seen by recruiters but also making a strong impression, thereby greatly improving their likelihood of being invited for interviews and ultimately securing job offers. The integration of AI-driven insights and real-time data analysis ensures that ATSPPro's users are equipped with the most effective tools to navigate the modern job landscape successfully.

## **Does it deliver on the “value proposition” ?**

ATSPPro's value proposition centers on increasing job seekers' chances of securing interviews by optimizing their resumes for both ATS and human review. The application delivers this value through several key functionalities and features:

### **1. Comprehensive Analysis:**

- **Detailed Scanning and Adjustment:** ATSPPro performs a thorough analysis of resumes to ensure they are ATS-friendly. It scans the resume for critical keywords, phrases, and formats that are known to be preferred by ATS. This comprehensive analysis helps identify and rectify any elements that might cause the resume to be filtered out by ATS algorithms.
- **Tailored to Job Descriptions:** The application evaluates resumes against specific job descriptions, ensuring that the resume is not only technically compatible but also tailored to the particular role the user is applying for.

### **2. Enhanced Readability:**

- **Human Recruiter Appeal:** Beyond optimizing for ATS, ATSPPro focuses on making resumes more appealing to human recruiters. This includes enhancing the overall readability of the resume by improving formatting, structuring content to highlight key achievements and skills, and ensuring the language used matches industry standards and the specific role.
- **Highlighting Achievements and Skills:** ATSPPro helps structure the resume in a way that effectively highlights the candidate's achievements and skills, making it easier for recruiters to quickly identify the candidate's qualifications and suitability for the job.

### 3. Personalized Feedback:

- **Specific Suggestions:** The application provides personalized feedback on how to improve the resume. This might include suggesting stronger action verbs, advising on the reorganization of sections for better impact, and identifying relevant skills or accomplishments that may be underrepresented.
- **Customized Recommendations:** By leveraging Google Gemini Pro AI, ATSPPro offers tailored recommendations that are specific to the user's resume and the job description they are targeting, ensuring that the feedback is relevant and actionable.

### 4. Interview Preparation:

- **Guidance and Practice:** ATSPPro goes beyond resume optimization by also preparing candidates for interviews. It provides tips on how interview questions can be asked for particular roles, offering sample questions and suggestions on how to answer them effectively.
- **Highlighting Expertise:** The interview preparation guide is designed to help candidates highlight their expertise and qualifications during interviews, increasing their chances of making a positive impression on potential employers.

The combination of comprehensive analysis, enhanced readability, personalized feedback, and thorough interview preparation equips job seekers with the necessary tools to navigate the modern job market successfully. ATSPPro not only ensures that resumes meet technical requirements but also enhances their qualitative appeal, thereby improving the likelihood of securing interviews and job offers.

## Does it respect user privacy/is it secure?

ATSPPro incorporates several measures to ensure user privacy and data security. Here's an elaboration on the key points:

### 1. Local Storage:

- **Minimized Data Exposure:** ATSPPro prioritizes user privacy by storing resumes and job descriptions locally on the user's device or in iCloud. This approach minimizes data exposure risks by ensuring that sensitive information does not need to be transmitted to or stored on external servers. By keeping data local, the risk of data breaches or unauthorized access from external attacks is significantly reduced.
- **User Control:** Local storage gives users complete control over their personal data. Users can manage, delete, or back up their data as needed, without relying on external services. This autonomy ensures that users are aware of where their data is stored and can take immediate action to protect it if necessary.

## 2. Authentication:

- **Secure Login Authentication:** ATSPPro utilizes Apple's FaceID for secure login authentication, which is a highly secure and convenient biometric method. FaceID ensures that only authorized users can access the app, adding a strong layer of security.
- **Enhanced Security Measures:** FaceID's technology is robust against spoofing and other types of unauthorized access attempts. It uses advanced algorithms to accurately recognize the user, making it extremely difficult for anyone else to gain access to the app. This biometric authentication method provides a seamless user experience while maintaining a high level of security.

ATSPPro respects user privacy and maintains a high level of security, which is crucial for handling personal information such as resumes and job application details. By leveraging local storage, secure authentication methods like FaceID, and secure data handling practices, ATSPPro ensures that user data is protected from unauthorized access and breaches. These measures collectively contribute to the app's commitment to user privacy and data security.

## Does it have proper app lifecycle/state management?

ATSPPro demonstrates effective lifecycle and state management, which are essential for providing a smooth and reliable user experience. Here's an elaboration on the key points:

### 1. State Management:

- **Efficient State Handling:** ATSPPro handles different states efficiently, ensuring that data is saved and restored appropriately. Whether the app is in an active, background, or inactive state, it manages transitions seamlessly, preserving the current user context and data. This means that users can switch between tasks or temporarily close the app without losing their place or progress within the app.
- **Consistency Across Features:** By implementing effective state management techniques, ATSPPro ensures that all features, from resume analysis to interview preparation guides,

operate smoothly without data loss or disruption. This consistency is critical for maintaining user trust and satisfaction, as users can rely on the app to retain their data accurately.

## **2. User Interface:**

- **Consistency and Responsiveness:** The app maintains a consistent and responsive user interface across different states. This includes handling interruptions such as incoming calls, notifications, or multitasking scenarios without degrading the user experience. ATSPPro ensures that UI elements remain stable and interactive, providing a smooth experience regardless of the app's state.
- **User-Friendly Navigation:** ATSPPro's user interface is designed to be intuitive and easy to navigate, even when transitioning between different states. Users can easily resume their activities without confusion, thanks to the app's well-managed UI state that keeps track of user interactions and data.

## **3. Session Persistence:**

- **Data and Progress Preservation:** ATSPPro ensures that user data and progress are not lost during app transitions or interruptions. By implementing robust session persistence mechanisms, the app can save the current state and restore it when the user returns. This is particularly important for an application like ATSPPro, where users may spend significant time refining their resumes or preparing for interviews.
- **Seamless User Experience:** Session persistence contributes to a seamless user experience by minimizing disruptions and maintaining continuity. Users can trust that their efforts and data are safe, even if they need to temporarily exit the app or if the app is closed unexpectedly.

## **Does it address at least three additional challenges (other than privacy and state management) unique to mobile app development?**

ATSPPro addresses several unique challenges in mobile app development, enhancing its functionality and user experience. Here's a detailed explanation of the key aspects:

### **1. PDF Processing:**

- **Extracting text accurately from PDF files** is complex due to varied formatting, fonts, and layouts used in resumes. Accurate text extraction is crucial for detailed analysis and providing relevant feedback.
- ATSPPro utilizes SwiftUI PDF Kit for precise text extraction. This toolkit efficiently handles the intricacies of different PDF formats, ensuring that the extracted text retains its

original structure and meaning. By accurately capturing the content of resumes, ATSPPro can perform a thorough analysis and provide targeted suggestions to improve ATS compatibility and recruiter appeal.

## **2. Real-Time Data Processing:**

- Providing real-time analysis and feedback is essential for user engagement and satisfaction. This requires efficient data processing and response times, which can be challenging given the limitations of mobile device hardware.
- ATSPPro implements real-time resume analysis and feedback using Google Gemini Pro AI. This advanced AI model processes resumes quickly, delivering immediate value to users by providing on-the-spot suggestions and improvements. The real-time feedback mechanism ensures that users can make adjustments to their resumes instantly, enhancing their chances of passing through ATS filters and impressing recruiters.

## **3. AI Integration Into The App:**

- The app integrates advanced AI capabilities from Google Gemini Pro AI to analyze resumes and provide personalized suggestions. This integration not only improves the accuracy of resume assessments but also enhances the overall functionality of the app by offering tailored advice and recommendations.

## **4. iOS Platform Compatibility:**

- ATSPPro is designed to work seamlessly with iOS, leveraging platform-specific features such as FaceID and iCloud storage. By integrating these features, ATSPPro ensures compatibility and optimizes performance across a range of iOS devices. The app's adaptive layouts and responsive design principles contribute to a consistent user experience, regardless of the device being used.

## **Does it have a good user experience?**

ATSPPro demonstrates a strong user experience based on the feedback from 3 beta testers, highlighting several key aspects that contribute to its overall effectiveness and usability:

### **1. Clean and Simple UI:**

- **Ease of Use:** Users consistently noted that the user interface (UI) is clean, intuitive, and simple to navigate. This simplicity ensures that users can easily access and utilize the app's features without confusion or difficulty.
- **No Lag or Hanging:** The app operates smoothly, with no reported lag or performance issues. This stability enhances the user experience by providing a reliable and responsive platform.

### **2. Relevant and Accurate AI Responses:**

- **Alignment with Job Descriptions:** The AI provides responses that align closely with the job descriptions and user resumes. This relevance ensures that the feedback and suggestions are meaningful and directly applicable to the user's job search.
- **Useful Suggestions:** Users appreciated the tailored suggestions and interview preparation tips, particularly the use of the STAR method for structuring bullet points. These detailed and specific recommendations help users improve their resumes effectively.

### 3. Convenient Features:

- **Session Management:** The app effectively manages user sessions, allowing users to leave the app and return without losing their place or progress. This capability is crucial for maintaining continuity, especially when users switch between different tasks or apps.
- **Direct Access to File Systems:** The integration with the iPhone file system and iCloud provides users with convenient options for uploading and managing their resumes. This direct access streamlines the process of getting resumes into the app for analysis.

### 4. Areas for Improvement:

- **Chat History Feature:** While some users found the chat download feature useful, many suggested that a chat history feature would be more beneficial. This feedback indicates that users prefer the ability to revisit past interactions within the app itself, which could enhance long-term usability.
- **Integration with Job Platforms:** The suggestion to integrate with job platforms like LinkedIn highlights an opportunity to further enhance the app's functionality. Such integration would streamline the job application process, making it even easier for users to update their resumes and apply for jobs directly from the app.