



“NUverse” - NU Corporate web-portal

Senior Project Final Presentation

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INTRODUCTION

- Modern universities mostly rely on their web platforms
- Nazarbayev University has the current system (my.nu.edu.kz)
- But it has some limitations
- Lack of a centralized platform for efficient communication and resource sharing.



INTRODUCTION

- Solution:
 - “NUVerse” - A secure, scalable web portal.
- Key Features:
 - News publishing
 - Interactive event calendar
 - Searchable phonebook
 - Role-based content access
- Supports and integrates with NU’s systems while maintaining brand standards.



DEVELOPED SOLUTION

Over two semesters, the following features were developed:

- **Home Dashboard** with news feed, event calendar, and birthday widget
- **News Publication Module** with CRUD operations and file attachments
- **Event Management System** with scheduling and approval workflows
- **Phonebook Directory** with role-filtered access



DEVELOPED SOLUTION

- **Admin Panel** for managing users and access rights
- **Security enhancements** including SSL encryption and session control

The project followed **Agile methodology**, enabling rapid development in 2-week sprints, with active feedback exchange and improved features step by step.



TECHNOLOGIES

Frontend

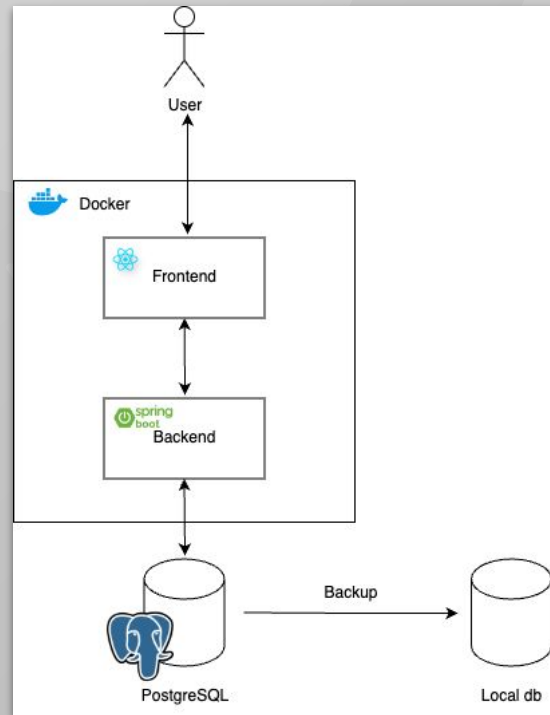
React + TypeScript + Next.js

Backend

Java + SpringBoot

Database

PostgreSQL

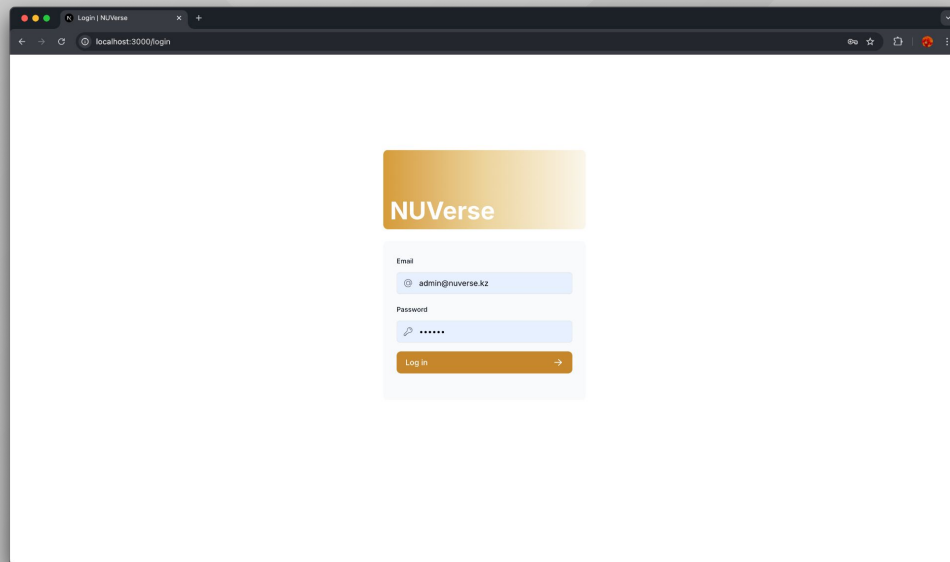




WORK DONE

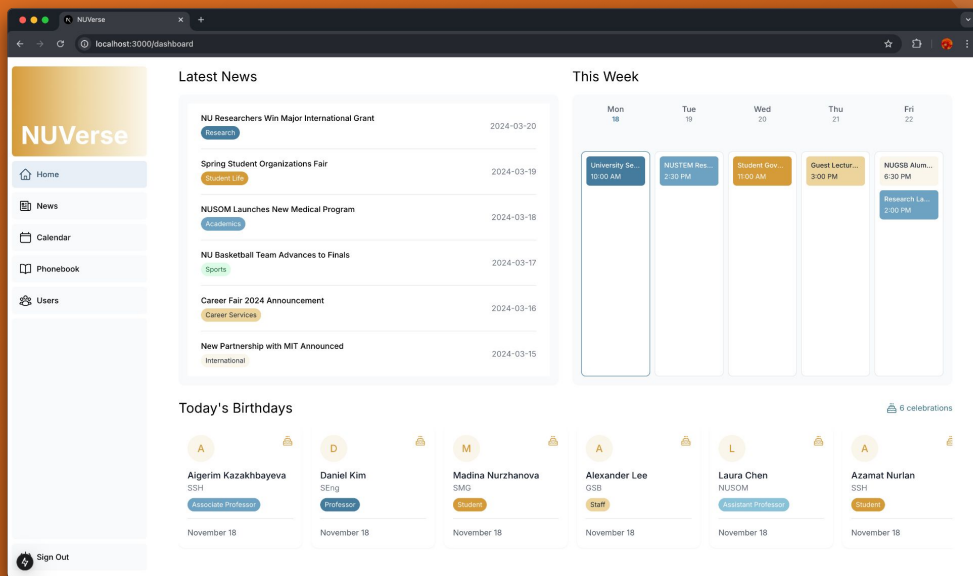
Authorization

- Spring Security
- Authority-based functionality
- Roles: Student, Staff, Admin
- Permissions
- Responsive UI login page





WORK DONE



The screenshot shows a web browser window displaying the NUVerse dashboard. The dashboard is organized into several sections:

- Left Sidebar:** Contains navigation links for Home, News, Calendar, Phonebook, and Users.
- Latest News:** A list of recent news items with categories and dates.
 - Research: NU Researchers Win Major International Grant (2024-03-20)
 - Student Life: Spring Student Organizations Fair (2024-03-19)
 - Academics: NUSOM Launches New Medical Program (2024-03-18)
 - Sports: NU Basketball Team Advances to Finals (2024-03-17)
 - Career Services: Career Fair 2024 Announcement (2024-03-16)
 - International: New Partnership with MIT Announced (2024-03-15)
- This Week:** A calendar view showing events for the week of Monday, November 18 to Friday, November 22.
 - Mon 18: University Se... (12:00 AM)
 - Tue 19: NUSTEM Res... (2:00 PM)
 - Wed 20: Student Gov... (11:00 AM)
 - Thu 21: Guest Lectur... (3:00 PM)
 - Fri 22: NUSOB Alum... (6:30 PM) and Research L.A. (2:50 PM)
- Today's Birthdays:** A section showing birthdays for November 18, with 6 celebrations in total.
 - A: Aigerim Kazakhbayeva, SSH, Associate Professor
 - D: Daniel Kim, SEng, Professor
 - M: Madina Nurzhanova, SMG, Student
 - A: Alexander Lee, GSB, Staff
 - L: Laura Chen, NUSOM, Assistant Professor
 - A: Azamat Nurlan, SSH, Student
- Bottom Left:** A "Sign Out" button.

Home Page

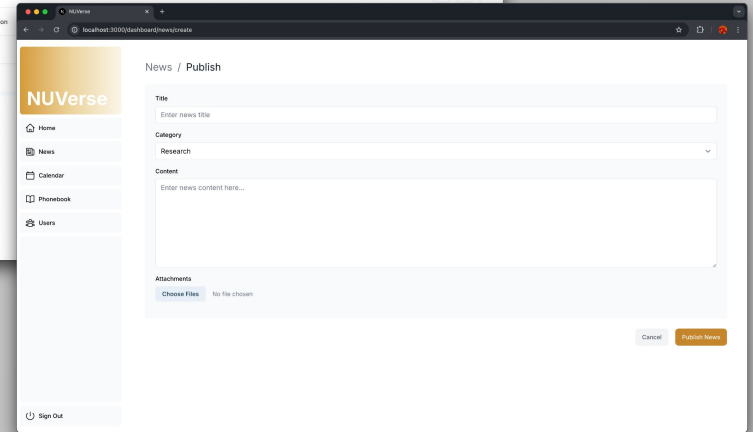
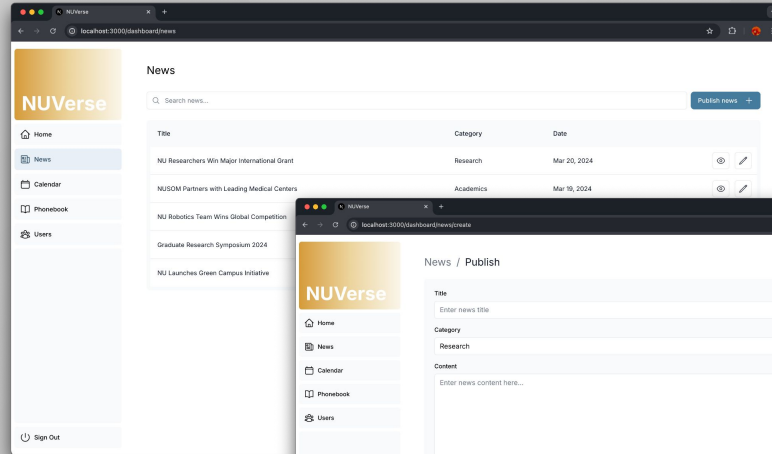
- Latest news widget
- Upcoming events calendar
- Today's birthdays



WORK DONE

News page

- View list of news
- Open news details
- Publish news
- Attach docx, xlsx, pptx, pdf





The screenshot displays the NUVerse web application interface. On the left is a sidebar with navigation links: Home, News, Calendar, Phonebook, and Users. The main content area is titled 'Calendar' and shows a monthly view for April 2025. Several events are visible on the calendar, such as 'Student Club Fair' on April 1st and 'Guest Lecture: AI in HR' on April 3rd. Below the calendar, a 'Create Event' form is open. The form includes fields for 'Event Title', 'Event Type' (set to 'Academic'), 'Date' (DD.MM.YYYY), 'Time' (HH:MM), and a 'Description' text area. There is also an 'Attachments' section with a 'Выбрать файлы' button. At the bottom of the form are 'Cancel' and 'Create Event' buttons.

WORK DONE

Calendar Page

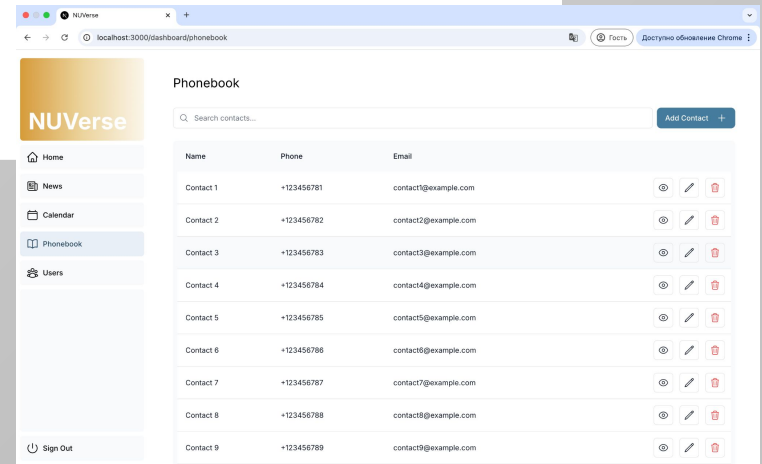
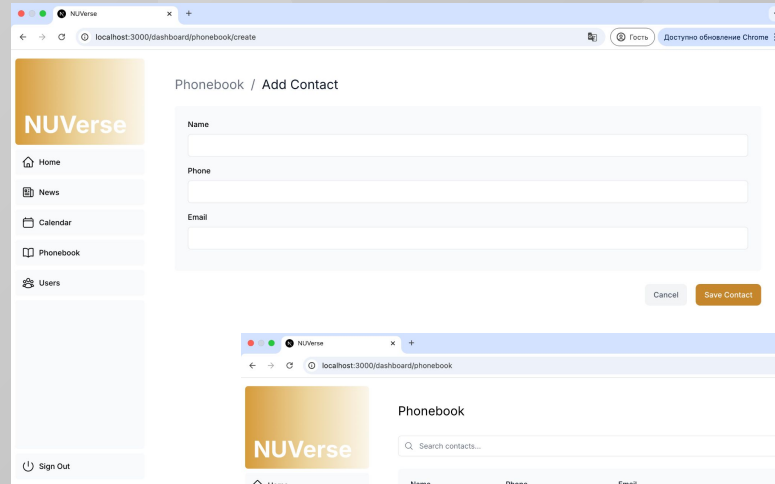
- View calendar
- View upcoming events
- Move to the different dates
- Create events



WORK DONE

Phonebook page

- View list of the contacts with contact information
- Update buttons to view, edit or delete contacts
- Add contact





NUVerse

Home
News
Calendar
Phonebook
Users

Users

Search users... Add User +

 John Smith Professor	 Emily Zhang Admin	 Professor Li Wei Professor
 Ayanbek Nurgul Student	 Altynai Askar Student	 Tom Cook Professor Assistant

1 2 3 4

Sign Out

NUVerse

Home
News
Calendar
Phonebook
Users

Users / Add

First Name
Enter your first name

Last Name
Enter your last name

Role
Student

Email
Enter your email

Cancel Create User

Sign Out

WORK DONE

Users Page

- View users
- Adding users



WORK DONE

User Profile Page

- View user profile with additional information

NUVerse

- Home
- News
- Calendar
- Phonebook
- Users

Ayanbek Nurgul
Student - Computer Science

[About](#) [Timeline](#)

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Birthday: 15 June 2002
Last Active: 23 April 2025
Enrollment Year: 2020
GPA: 3.85

Current Courses

CSCI 301 Algorithms	CSCI 402 Operating Systems
MATH 230 Linear Algebra	HUMN 102 Critical Thinking

Professor John Smith
Professor - Computer Science

[About](#) [Timeline](#)

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Office Hours:

- Monday: 14:00-16:00
- Wednesday: 10:00-12:00
- Friday: By appointment

Degrees

- Ph.D. in Computer Science – Massachusetts Institute of Technology (2010)
- M.Sc. in Artificial Intelligence – University of Edinburgh (2006)
- B.Sc. in Computer Engineering – University of Toronto (2004)

Experience

- Associate Professor, Nazarbayev University (2015–Present)
- Assistant Professor, University of Oxford (2010–2015)
- Research Assistant, UC Berkeley (Summer 2009)

Research Interests

- Machine Learning

Courses Taught



Evaluation

- Manual UI/UX Testing
- Unit Testing & Load Testing

Future plans

- Mobile application development
- An advanced analytics dashboard
- AI-powered features like chatbot integration for quick FAQs
- Notifications system
- Integration with university services.



**THANK YOU
FOR YOUR ATTENTION!**