



Millersville University

**WEB DEVELOPMENT SYLLABUS**



# ABOUT MILLERSVILLE

A BETTER WAY TO LEARN. A FASTER WAY TO EARN

## OUR MISSION

At Millersville, we are committed to preparing individuals with the skills, confidence and adaptability needed to thrive in a rapidly evolving tech industry, fostering a community where growth, creativity and lifelong success are possible for everyone.

## WHY CHOOSE MILLERSVILLE?

- Industry-aligned curriculum
- Flexible learning options (online)
- Personalized mentorship
- Real-world projects
- Career support and job placement assistance
- Diverse and inclusive community

## OUR PROGRAMS

- Web Development
- Cybersecurity

# WHAT SETS MILLERSVILLE APART?

## FAST-TRACK YOUR SUCCESS

Our curriculum is designed to equip you with the essential skills and knowledge needed to thrive in the tech industry in a shorter timeframe compared to traditional programs.

## MASTER REAL-WORLD SKILLS

Go beyond theory and gain practical experience through hands-on projects that build your portfolio and showcase your abilities to potential employers.

## PERSONALIZED SUPPORT NETWORK

Millersville prioritizes your success. You'll benefit from one-on-one mentoring from experienced instructors who provide guidance and address your individual learning needs.

## THRIVING COMMUNITY

Join a supportive network of fellow learners and instructors who create a collaborative environment where you can learn from each other and build lasting connections.

## CAREER SERVICES

Get help with resume writing, interview preparation, and job search strategies. Our dedicated career team supports you every step of the way.

## INDUSTRY CONNECTIONS

Millersville has established relationships with leading tech companies. This provides you with access to potential employers and valuable networking opportunities.

WHERE INNOVATION MEETS EDUCATION

# UNLEASH YOUR POTENTIAL WITH MILLERSVILLE

## ACCELERATE YOUR CAREER IN MONTHS, NOT YEARS

Our intensive, industry-aligned curriculum propels you into the tech world at lightning speed. Master cutting-edge skills in just months, positioning you to launch your dream career faster than traditional programs allow.

## BUILD A JOB-WINNING PORTFOLIO

Dive beyond textbook learning into real-world projects that matter. Collaborate with actual clients, tackle genuine challenges, and emerge with a portfolio that turns heads and opens doors in the competitive tech landscape.

## PERSONALIZED MENTORSHIP THAT TRANSFORMS

Experience the power of one-on-one guidance from industry veterans. Our mentors don't just teach—they inspire, challenge, and mold you into the professional you aspire to be, tailoring their approach to your unique learning style and career goals.

## JOIN A COMMUNITY OF FUTURE TECH LEADERS

Surround yourself with passionate, like-minded innovators. At Millersville, you're not just a student—you're part of a vibrant community where collaboration fuels growth, friendships forge future professional networks, and peer support propels everyone forward.

## CAREER LAUNCH PAD

Our career services go beyond resume polishing. Benefit from mock interviews with industry insiders, personalized job search strategies, and ongoing support that doesn't end until you land your dream role. We're invested in your success from day one to hire day and beyond.

## TAP INTO OUR POWERFUL INDUSTRY NETWORK

Leverage Millersville's deep-rooted connections with tech giants and innovative startups alike. Our industry partnerships open doors to exclusive job opportunities, insider insights, and networking events that can jumpstart your career in ways other programs simply can't match.

# BRADEN HUNT

WEB DEVELOPMENT ALUMNI



"Everything from the incredibly relevant curriculum and amazing instructors is there to help you achieve your goal of learning the skills you need to pivot into tech. I've had the opportunity to work with wonderful career mentors, instructors and students throughout my time in the Web Development course and look forward to continuing these relationships now that I've graduated."

# MILLERSVILLE METHOD

Revolutionizing tech education through innovative learning approaches that prepare you for real-world success.

## FLIPPED CLASSROOM

Learn independently through pre-recorded lectures and online resources, then participate in interactive sessions with mentors.

- Flexible learning schedule
- Self-paced video lectures
- Interactive Q&A sessions
- Hands-on coding workshops

## MASTERY-BASED LEARNING

Progress by demonstrating understanding through projects and assessments, not just time spent.

- Project-based curriculum
- Skill-focused assessments
- Personalized learning paths
- Continuous feedback loop

## WHY OUR METHOD WORKS

### EFFICIENT LEARNING

Focus on understanding and application, not just memorization. Learn at your own pace and revisit complex topics as needed.

### REAL-WORLD PREPARATION

Gain practical experience through projects that mirror industry challenges, preparing you for your future tech career.

### PERSONALIZED SUPPORT

Receive individualized attention from mentors who guide your learning journey and help you overcome obstacles.

WEB DEVELOPMENT: PROFESSIONAL OUTCOMES

# LEARNING OUTCOMES

By completing our program, you will develop the following skills:

## FULL-STACK DEVELOPMENT

Build comprehensive web applications from the ground up, mastering both front-end and back-end technologies.

## USER INTERFACE DEVELOPMENT

Design and develop effective user interfaces using HTML, CSS, and JavaScript, creating intuitive user experiences.

## MODERN FRAMEWORK PROFICIENCY

Utilize popular frameworks like React to create dynamic, responsive user interactions.

## DATA MANAGEMENT

Efficiently manage data using Node.js, Express, and MongoDB, ensuring robust and scalable applications.

## COLLABORATIVE DEVELOPMENT

Work effectively on real-world projects, gaining valuable team experience and problem-solving skills.

## PROFESSIONAL PORTFOLIO DEVELOPMENT

Create a compelling portfolio that demonstrates your skills, projects, and value to potential employers.

## CAREER PREPARATION

Develop job search strategies, interview skills, and networking abilities to effectively pursue opportunities in the tech industry.

## THE IMPACT OF THESE SKILLS

Our curriculum is designed to equip you with the skills most in-demand by leading tech companies. You'll graduate with both theoretical knowledge and practical experience, supported by a portfolio of real projects.

Each component of the program is strategically crafted to advance your technical proficiency and career readiness, positioning you for success in the competitive tech job market.

# MASTERY PILLARS

Our responsive curriculum isn't just a series of tutorials that you check off. We have developed three unique mastery pillars for our program to help take you from where you're now all the way to your future career in tech.



## EDUCATION

Millersville's instructors work with you to learn the skills you need to succeed. Our curriculum makes it possible for you to complete your education as fast as you can.

- Personalized learning paths
- Hands-on, project-based curriculum
- Continuous feedback and improvement



## EXPERIENCE

We match you with projects in real tech companies like Meta, Google, and Adobe. You'll hone your skills, get real industry experience, and build a portfolio that employers are looking for.

- Work on real-world projects
- Collaborate with industry professionals
- Build a compelling portfolio



## EMPLOYMENT

Millersville's mentors prepare you to apply, interview, and land your first job in tech. Our job search platform makes it simple to find and apply for the perfect jobs and access our network of hiring partners. Our job isn't done until you're hired.

- Interview preparation and practice
- Access to exclusive job opportunities
- Ongoing support until employment



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# EDUCATION STAGE

//21 weeks to master skills

Our expert mentors and instructors guide you through a dynamic curriculum. Prove your mastery through projects and assessments, not just time.

## OUR APPROACH

### EXPERT-LED INSTRUCTION

Learn from industry professionals who bring real-world experience to the classroom.

### PROJECT-BASED LEARNING

Apply your skills to real-world projects, building a portfolio as you learn.

### PERSONALIZED MENTORSHIP

Receive one-on-one guidance to overcome challenges and accelerate your growth.

### MASTERY-BASED PROGRESSION

Advance based on your demonstrated skills, not just time spent in the program.

## WHAT YOU'LL LEARN

- Full-stack web development fundamentals
- Front-end technologies (HTML, CSS, JavaScript, React)
- Back-end development (Node.js, Express, Databases)
- Version control and collaboration tools
- Agile methodologies and project management
- Industry best practices and coding standards

# CURRICULUM

## WEB DEV FUNDAMENTALS

### LVL.1

Introduction to HTML, CSS, and basic website architecture, as well as building static websites and understanding web page construction.

- HTML5 structure and semantics
- CSS3 styling and layouts
- Responsive design principles

## INTERMEDIATE WEB DEV

### LVL.2

Advanced CSS techniques, deeper JavaScript exploration, and interactive elements. Error handling, animations, and more dynamic website functionalities.

- Array Methods
- JavaScript ES6+ features
- DOM manipulation and events

## INTRO TO REACT

### LVL.3

Introduction to the React framework for building dynamic user interfaces. You will learn about components, props, state, and controlled components.

- React component lifecycle
- State management with hooks
- Conditional rendering

## ADVANCED REACT

### LVL.4

Refining React skills with advanced patterns, routing techniques, and API integration. Building complex and responsive applications with a real-world React API project.

- Context API
- React Router for SPA
- `useEffect()`, `useState()`, `useContext()`

## FULL STACK MASTERY

### LVL.5

Exploring servers and databases with Node.js, Express, and MongoDB and building full-edged web applications, data storage, and retrieval.

- RESTful API development
- Database design and operations
- Server-side rendering

## CAPSTONE PROJECT

### LVL.6

Culminating your learning journey with a comprehensive capstone project, implementing secure token authentication, creating a portfolio showcase, and crafting a polished resume.

- Full-stack application development
- Authentication and authorization
- Deployment basics

# PROJECTS

## ROLE PLAYING GAME

PROJ.1

Students will build a text based adventure game.

## TO DO LIST

PROJ.2

Students will create a to-do list that uses a Millersville To-do API. Users of the app will be able to see old to-dos, mark them as complete, add new ones, and delete them.

## REACT MEME GENERATOR

PROJ.3

Students will use git and GitHub to collaborate with their team. They will build an app using React where users will be presents with a meme image, and can add top and bottom text.

## REACT APP

PROJ.4

Students will pick a public API that interests them. They will build an app with three pages that will display data in fun ways from a get request.

## INDIVIDUAL FULL STACK

PROJ.5

You are tasked with building a full-stack application, meaning you will need to build the API, server, and front-end React app.

## AUTHENTICATED FULL STACK

PROJ.6

Students will build a full stack app with user authentication.



## OUR ASSESSMENT PHILOSOPHY

At Millersville, we believe in continuous assessment and feedback to ensure your success. Our assessment process is designed to:

- Identify and address knowledge gaps early
- Provide personalized guidance and support
- Ensure you're fully prepared for each new challenge
- Build confidence in your growing skills

## ASSESSMENTS

### MID-LEVEL ASSESSMENT

//MDLVL.ASSMNT

- Submit your work to GitHub for instructor review
- Meet with your instructor for a 1:1 assessment
- Review mid-level quiz results
- Receive feedback before moving to the next phase

### END OF LEVEL ASSESSMENT

//EDLVL.ASSMNT

- Schedule a comprehensive assessment with your instructor
- Participate in code challenges
- Review a selection of assignments from the level
- Determine readiness for the next level or identify areas for improvement

# EXPERIENCE STAGE

//gain the skills to land a job

Gain industry experience while honing your skills. Millersville connects you with real projects at real companies, building a portfolio that impresses employers.

## WHAT TO EXPECT

### REAL-WORLD PROJECTS

Work on actual projects for companies, giving you hands-on experience with industry practices and challenges.

### PORTFOLIO BUILDING

Develop a robust portfolio showcasing your skills and completed projects to potential employers.

### NETWORKING OPPORTUNITIES

Connect with professionals in the field, building relationships that can lead to job opportunities.

### MENTORSHIP

Receive guidance from experienced professionals who can provide insights and advice on your career path.

## THE MILLERSVILLE ADVANTAGE

- Partnerships with leading tech companies
- Tailored project matching based on your skills and interests
- Continuous support and feedback throughout your experience
- Opportunity to work on diverse projects across various industries
- Job search support and interview preparation

# OVERVIEW

## EXPERIENCE STAGE

### PROVE YOUR NEW SKILLS

//REAL.PROJ

It's not enough to just have skill, you have to demonstrate those skills to industry. Expect to gain industry experience and build a portfolio that represents you as the best candidate for a job in tech.

- Work on real-world projects
- Build a professional portfolio
- Gain practical industry experience
- Develop skills that employers value

### WORK ON AN AGILE TEAM

//REAL.TEAM

Classes are structured like the industry. Just like successful tech companies, you will have daily stand-ups with your instructors and team to measure progress and recognize/discover areas that need improvement.

- Experience daily stand-up meetings
- Learn agile methodologies
- Collaborate with team members
- Receive regular feedback and guidance

### WORKING FOR REAL PEOPLE

//REAL.CLIENT

Since you're working on real-life projects, you will enter the job search with plenty of industry experience to present to hiring managers.

- Interact with real clients
- Understand business requirements
- Develop communication skills
- Build a network of industry contacts

### WHY OUR EXPERIENCE STAGE MATTERS

The Experience Stage at Millersville bridges the gap between learning and real-world application. It's designed to give you the practical experience employers are looking for, setting you apart in the competitive tech job market.

# STUDENT PROJECT

EXPERIENCE STAGE

## POLY MOBILE APPLICATION

//REAL.PROJ

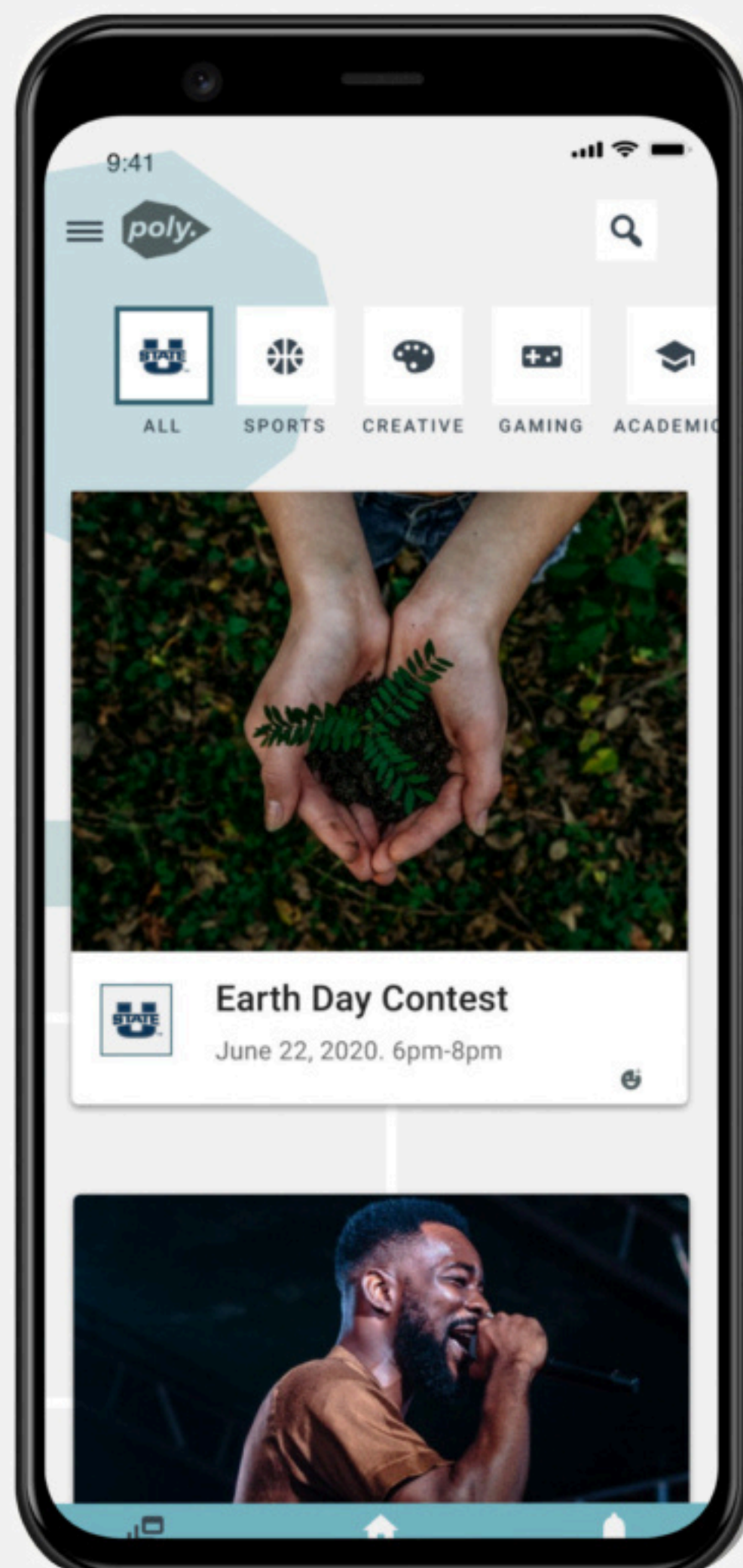
Poly is a Social Platform Organizational Engagement. Millersville Students worked directly with Poly to completely re-design their mobile application.

### Project Scope

- User Research
- Brand Design
- Experience Design
- Interface Design

### Key Achievements

- Improved user engagement by 40%
- Streamlined navigation structure
- Implemented responsive design for all devices
- Integrated new brand identity into UI



## STUDENT PROJECT ROLES



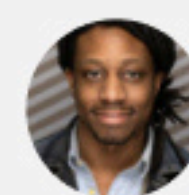
Alex Terese  
UX/UI DESIGNER



Venus Sung  
UX/UI DESIGNER



Zach McEntire  
WEB DEVELOPER



Rashid Nellons  
WEB DEVELOPER



# STUDENT PROJECT

EXPERIENCE STAGE

## UTAH BEEKEEPERS ASSOCIATION WEBSITE

//REAL.PROJ

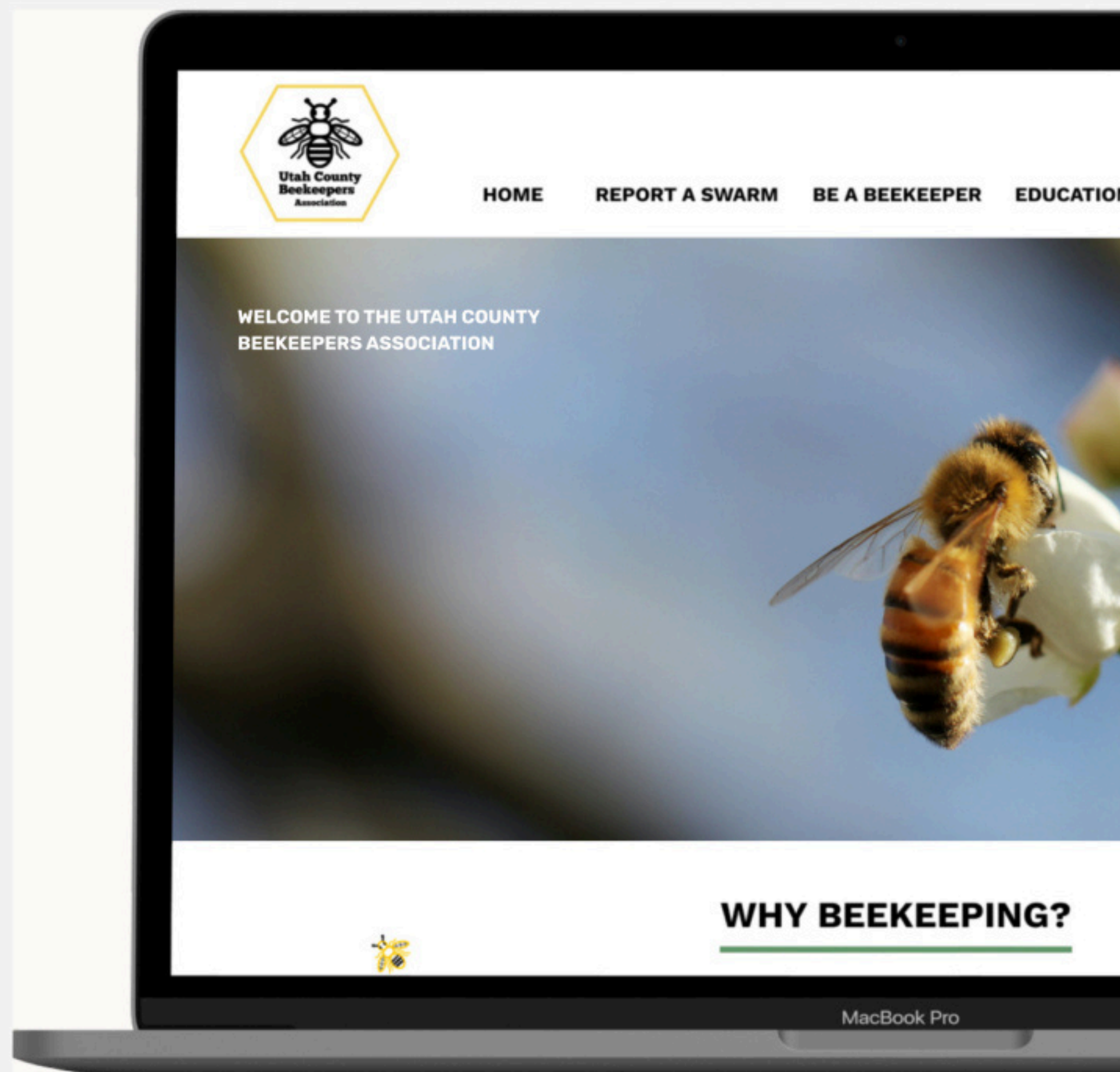
The Utah Beekeepers Association Is A Local Non-Profit That Supports Beekeepers. Millersville Worked Directly With Them To Re-Design And Develop A New Website.

### Project Scope

- Interface Design
- Brand Design
- Backend Development
- Frontend Development

### Key Features

- Responsive design for all devices
- Interactive beekeeping resources
- Member registration and login system
- Event calendar and registration
- Blog for sharing beekeeping tips and news



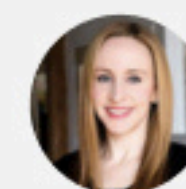
## STUDENT PROJECT ROLES



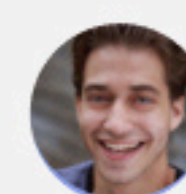
Alex Terese  
UX/UI DESIGNER



Joey Johnston  
UX/UI DESIGNER



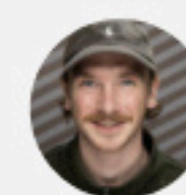
Sarah Aldous  
WEB DEVELOPER



Colby Prather  
WEB DEVELOPER



Alan Triacca  
WEB DEVELOPER



Bradley Mullick  
WEB DEVELOPER

# EMPLOYMENT

//lifetime

Get personalized career coaching, access our extensive job network, and master interview skills. We're invested in your success – our job isn't done until you land your dream tech job.

**OUR COMMITMENT TO YOUR CAREER**

## PERSONALIZED CAREER COACHING

One-on-one guidance tailored to your career goals and aspirations.

## EXTENSIVE JOB NETWORK

Access to our vast network of tech employers and exclusive job opportunities.

## INTERVIEW MASTERY

Intensive training to excel in technical and behavioral interviews.

## LIFETIME SUPPORT

Ongoing career guidance and resources throughout your tech journey.

## THE MILLERSVILLE ADVANTAGE

- Resume and portfolio optimization
- Mock interviews with industry professionals
- Salary negotiation strategies
- Job search techniques and tools
- Networking events and tech meetups
- Continuous learning opportunities

# OVERVIEW

## EMPLOYMENT

### LAND THE JOB

//CAREER.PREP

We understand that it takes a lot more than skill to succeed in the tech industry. We will be by your side every step of the way to ensure you accept your first industry job.

- Personalized career coaching
- Resume and portfolio review
- Interview preparation and mock interviews
- Job search strategies and networking opportunities

### SUPPORT FOR LIFE

//SUPPORT.4LIFE

We will support you throughout your entire career. If you ever find yourself in-between jobs or need help growing into higher positions, we're here to help.

- Ongoing career counseling
- Access to alumni network and events
- Skill upgrade workshops and webinars
- Job transition assistance

### LIFETIME LEARNING

//UPDATE.4LIFE

Industry needs change quickly and we change with them. You will have lifetime access to our updated curriculum so you can continue learning and growing.

- Regular curriculum updates reflecting industry trends
- Access to new courses and learning materials
- Tech talks and industry expert sessions
- Opportunity to mentor new students

### YOUR SUCCESS IS OUR SUCCESS

At Millersville, we're committed to your long-term success in the tech industry. Our comprehensive support doesn't end at graduation - it's a lifelong partnership to ensure you thrive in your career.

From landing your first job to advancing into leadership roles, we're here to support you every step of the way.

# OVERVIEW

CAREER STAGE

**MILLERSVILLE GRADUATION RATE**

**76%**

**EMPLOYMENT RATE**

**80%**

**AVERAGE STARTING SALARY**

**\$72K**



**HANNAH VASCHEL**

Great experience overall! This was the only boot camp I spoke with that had any prioritization of diversity and their program and the community I formed there is excellent. I've been working as a software developer for almost four years now, and I can truly say that it's helped change my life!

★ ★ ★ ★ ★



**NATHAN MIHU**

I was able to avoid the time and debt of a major college degree, and get started earning real world working experience. I am a bit of an exception to the rule as I was able to procure my first post school job starting the Monday after classes ended, however, I believe anyone who has a drive to make it and push themselves to be better will get the skills necessary to go out and become a powerhouse in the workforce.

★ ★ ★ ★ ★

## READY TO GET STARTED?

Chat with Admissions to discuss your goals and answer any questions.

- Personalized guidance on program selection
- Information on financial aid options
- Insights into curriculum and learning approach

No commitment required. Let's discuss your future in tech!

[SCHEDULE YOUR CHAT](#)

