Reflection Essay: My College Career in the Honors Program

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Introduction

Reflecting on my journey through NC State's Honors Program, I see a path defined by curiosity, challenge, growth, and impact. The portfolio I have assembled is composed of seven academic projects and three high-impact experiences, and it represents more than a set of assignments or accomplishments. It tells the story of how I developed as a thinker, a creator, a leader, and a global citizen over the past four years. These artifacts form a timeline of my academic and personal evolution, showing the moments that challenged me, shaped my skill set, and transformed my perspective.

Integrating Academic and Creative Pursuits

One of the most defining aspects of my portfolio is how I try to combine technical expertise with creative exploration. This synthesis reflects not only my passion for computer science but also my belief that innovation thrives at the intersection of disciplines.

PotLuck - CSC 342 Final Project

PotLuck, my full-stack peer-to-peer wagering application, exemplifies the technical skills I developed and the deeper lessons I learned about product development. In CSC 342, I gained hands-on experience with database design, API construction, and user interface development. PotLuck challenged me to combine back-end architecture with front-end usability, creating a tool that users find intuitive while also addressing complex logic for wagering and incentive systems. Beyond the technical aspects, PotLuck reflects my desire to create software that fosters

connection and engagement among people. I learned a lot from it, and that is why my roommate and I are currently working on it as a startup, creating a minimum viable product, and planning to begin beta testing and looking for venture capitalist funding right now. Working on it outside the classroom has reinforced lessons about persistence, iteration, and the value of feedback, and I can't wait to see what the future holds for this app.

HON 290 Video Essay - Kanye West's "New Slaves"

In contrast to my technical work, my HON 290 video essay demonstrates my ability to apply analytical thinking in a creative medium. This project was significant not only because it required me to work with digital art and film but also because it pushed me to think critically about how art intersects with activism. I explored themes of systemic oppression and freedom of expression, applying critical frameworks to analyze the song's lyrics, imagery, and context.

MUS 306 Music Composition Project

My final composition in MUS 306 illustrates another form of integration: blending computational thinking with artistic expression. Using digital audio manipulation techniques, I explored how algorithms and sound design can create unique compositions. This project allowed me to experiment with technical tools in the service of art, bridging my computer science skills with creative exploration. It was a reminder that technology is not just a means of solving problems but also a medium for expression.

These artifacts together reflect my engagement with integrative learning by using knowledge from one domain to deepen insight into another.

Growth Through Collaboration and Applied Learning

The Honors Program has also taught me the value of collaboration and applied learning. Many of my projects were not solo endeavors but required working with teams, communicating across disciplines, and engaging in iterative development.

CoffeeMaker - CSC 326 Team Project

CoffeeMaker was my first full-stack development project completed entirely within a collaborative team environment. It introduced me to version control systems, testing frameworks, and agile workflows, which are all foundational practices for professional software development. More importantly, it taught me how to navigate teamwork: aligning on goals, negotiating design decisions, and balancing different strengths. These skills extended beyond technical proficiency and shaped how I approach group work across contexts.

Eye2Eye - Undergraduate Research Project

Eye2Eye, the research project I have been working on for several semesters now, represents the culmination of applied learning. Across CSC 498 and 499 and as a part of several REUs, I worked in a lab environment to design a video conferencing app that uses dual webcams and spatial audio to reduce “Zoom fatigue.” This project was the first in my portfolio to translate into a real-world tool actively used by others. I learned to design with empathy for the end user, manage a long-term project, and design an experiment with feedback for others. This experience reinforced that computer science is not just about code; it is about solving problems that matter.

Both CoffeeMaker and Eye2Eye represent a progression in my learning: from mastering collaborative coding practices to applying those practices to meaningful, user-centered research. They embody the Honors Program’s emphasis on learning through doing, and they show how collaboration fosters innovation.

Leadership and Service as Learning

The Honors Program encourages not only academic growth but also leadership and service. These dimensions have shaped how I think about my role as a student and as a citizen.

President of 180 Degrees Consulting - Leadership Role

Serving as President of 180 Degrees Consulting was central to my college career. Leading approximately 60 consultants across eight project teams continuously over 2 semesters required balancing organizational strategy with individual mentorship. I learned how to empower others while fostering accountability and high standards. This role taught me skills that extend beyond management: empathy, communication, and the ability to translate vision into action. Leading such a large organization gave me insight into leadership as a practice grounded in service.

Internship at Gilbarco Veeder-Root

My software engineering internship offered a different form of leadership – one rooted in professional growth. Working on large-scale systems within an engineering team taught me the value of mentorship, rigorous testing, and collaborative problem-solving. It also helped me connect classroom theory to real-world practice. I worked on projects that impact the real world and are integrated into most of the gas pumps that are in America. Every time I fill up with gas now, I know that I made an impact there.

I had the opportunity to work on robotics automations, quality assurance testing, building web apps, and helping with hardware-software integrations to meet an important deadline. I learned that leadership often means listening, asking thoughtful questions, and creating space for others to contribute.

These experiences shaped my understanding of leadership as both a skill and a responsibility, aligning closely with the Honors Program's emphasis on developing leaders for the community.

Broadening Perspectives Through Global Experience

One of the most transformative moments in my college career was studying abroad in Prague.

Study Abroad - Cultural Immersion and Growth

Living in Prague challenged me to step outside my comfort zone in ways no other experience had. Navigating a new culture, language, and academic environment pushed me to adapt quickly, listen deeply, and engage with perspectives different from my own. This experience broadened my worldview and shaped my sense of empathy, which are skills that are critical not only in life but also in teamwork and problem-solving. It also fully shifted how I look at my life's purpose by showing me how much I love to travel.

Innovation and Exploration

Throughout my Honors Program journey, I sought opportunities to innovate and explore beyond the classroom. Hackathons and independent projects became spaces where I could test ideas quickly and creatively.

Gridchat - Geospatial Communication

Gridchat challenged me to think critically about the nature of connection and the role of technology in shaping human interaction. At its core, Gridchat is a mobile chat application that allows users to communicate with anyone within a defined 100-square-meter “box” — a digital space determined by geolocation. This means that anywhere in the world, you can connect with other users who are within your virtual box. The intent was to encourage spontaneous interactions, foster new connections, and transform the way people meet and communicate in the digital age.

What made Gridchat particularly exciting was how it mixes technical innovation with social experimentation. Unlike traditional chat apps, which rely on pre-existing relationships or interest-based communities, Gridchat created a dynamic, location-based platform where proximity itself became the gateway to conversation. This challenged me to think not only about software architecture but also about human behavior: how does location shape communication? What kind of connections emerge when conversation is driven purely by chance encounters rather than curated networks?

From a technical perspective, Gridchat required innovative problem-solving. I had to work with geospatial APIs, location tracking, and real-time messaging infrastructure, balancing performance, accuracy, and privacy. This meant addressing challenges such as ensuring minimal latency for seamless conversations, handling large-scale geospatial queries, and protecting user data. It was an intense exercise in both backend scalability and front-end usability.

Beyond the technical challenges, Gridchat sparked creative exploration. The project pushed me to think about design, how to make the interface intuitive while conveying the unique premise of

the app. It also prompted me to think about the ethics of location-based services. How do you balance user privacy with the benefits of shared location? How might such a system be used responsibly to foster genuine connection rather than exploitation?

Gridchat reinforced an important lesson I have carried through my Honors Program experience: innovation often begins with asking “what if” questions. It is a reminder that curiosity-driven exploration can lead to ideas that challenge existing assumptions about technology and human interaction. If I were to continue a project outside of Potluck, it would be this one.

Deepquestion - Mental Health and Self-Reflection

Deepquestion emerged from my desire to combine technology with meaningful social impact. It is a journaling app designed to reduce the stigma around mental health while providing users with a safe space for self-reflection. On the app, all users are prompted to journal every day based on a thought-provoking question, and their responses are anonymously shared on a feed. This allows users to see that they are not alone in their struggles, fostering a sense of community and understanding.

Beyond journaling, Deepquestion uses natural language processing to analyze responses over time, offering insights into mental health trends and helping users understand their emotional well-being.

It remains one of my most personally meaningful projects because it reflects my commitment to creating solutions that serve people, not just systems, and it won a prize in the HackDuke competition.

Synthesizing Growth: From Year One to Graduation

Looking back at my timeline, my Honors Program journey is marked by a progression from exploration to integration, from individual learning to leadership, and from local engagement to global perspective.

- Year One: Exploration and adaptation. I began with projects that introduced me to technical skills and interdisciplinary thinking.
- Years Two and Three: Collaboration and applied learning. I engaged deeply in team projects, research, and leadership roles.
- Senior Year: Synthesis and leadership. I integrated my experiences, undertook research with real-world impact, and reflected on how these experiences connect to my identity as a graduating senior.

Each artifact in my portfolio represents a step along this trajectory: a moment where I connected skills, challenges, and insights. Together, they tell a story of sustained growth fueled by curiosity and grounded in service.

Reflection on the Honors Program

Overall, the Honors Program has been a defining part of my college career. It challenged me to think deeply, work collaboratively, and integrate learning across disciplines. It gave me opportunities to experiment, to fail, and to grow. It cultivated my skills as a computer scientist, a leader, and a citizen of the world.

I would wholeheartedly recommend the Honors Program to future NC State students. It offers an environment that fosters intellectual curiosity and encourages students to connect their

academic work to personal passions and community impact. The Honors Program is not just an academic track — it is a framework for holistic growth.

Conclusion

My portfolio is more than a collection of projects; it is a map of my development throughout college. The Honors Program shaped that map, guiding me toward projects and experiences that pushed me to integrate disciplines, lead with empathy, and innovate with purpose.

As I graduate, I carry forward not just technical skills but a mindset shaped by curiosity, creativity, and a commitment to impact. I leave the Honors Program not only as a computer scientist but as a leader, a global citizen, and a lifelong learner.