

AI FOR IMPACT

FALL 2024

CO-OP PROGRAM

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About The Program

For six transformative months, you will use generative AI, digital, data and community engagement to create cutting-edge projects that improve lives. Guided by professional advisors to enable you to design and deliver solutions to complex problems, you will work with communities and partners to become powerful agents of change.

Each week, you will participate in a skill-building workshop, designed to help you learn about the ethical and responsible use of AI and advance your projects from idea to implementation.

Project stand-ups will be Monday morning at 11:00 am and Fridays 3:00 - 5:00pm

AI deep dives will be every Wednesday at 5:00 pm

Client check-ins will be weekly at a time to be mutually agreed with the agency.

Workshop Calendar

Unless otherwise noted, Friday meetings are in person from 10 am -1 pm¹

Active participation is a required component of the co-op. Partners and guests are welcome for all Friday workshops.

¹ 10 am -student-led AI product/features discussion
10:30 - student-led AI research discussion
11:30 am - 1:00pm - skill-building workshop

Please note that week 1 will have daily workshops for students.

Office Closed on these Dates

- Friday, Aug 30 - Monday, September 2nd, Labor Day
- Monday, October 14th, Indigenous Peoples' Day
- Monday, November 11th, Veteran's Day
- Thursday, November 28 - Friday, November 29th, Thanksgiving Holiday

Product Timeline

Students will work in teams of two on their projects.

In each team, one member shall be responsible for client communication and the other member responsible for communicating with the AI for Impact Coop staff.

Teams will set a time for a standing check-in with their agency point of contact at the beginning of the co-op. Students will be responsible for:

1. Preparing an agenda prior to every client meeting
2. Taking notes during client meetings.
3. Sharing action items within 24 hours of a client meeting.
4. If client meetings are bi-weekly, then teams shall be responsible for sharing a written update in the intervening weeks.
5. The egraeff@ai4impact.ai should be copied on client emails.

Please see the course timeline below.

For a more detailed course calendar see the Weekly Course Calendar section.

Phase	Duration	Product Team Focus Points	Government/Agency Partner Involvement
Problem Definition	July (Weeks 1-4)	Drilling down on the problem and its root causes	Work with agencies to identify and obtain relevant sources of data and documents.
Human Centered Design and Requirements Gathering	August (Weeks 5-8)	Deepening our understanding of the problem in consultation with those most affected.	Collaboration with agencies to identify, interview, observe and consult with residents, stakeholders and experts.
Initial product development	September-October (Weeks 9-16)	Intensive tech development, emphasizing agile and iterative development.	Frequent feedback on biweekly improvements.
Agile and iterative development	October-November (Weeks 16-20)	Ensuring that the product is fully functional; make front-end and design improvements. Further test usability.	Work together to plan for handoff and scale.

Handoff	December (Weeks 20-24)	Finalize instructions, directions, documentation and production.	Work with agency partners to determine next steps for deployment and handover
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Following an initial phase of problem scoping and equitable resident engagement to define requirements with the input of those most affected, we anticipate beginning product development around week 9. We will aim for iterative improvements throughout the six month project duration with multiple rounds of feedback and testing. An overview of the general development timeline follows:

Week 1 To Dos

Sign up for:

- [The Neuron](#)
- [One Useful Thing](#)
- [Reboot Democracy with AI](#)
- [Civic AI Handbook](#)
- [The GovLab Digest](#)

Course Basics

- CS 4535. PROFESSIONAL PRACTICUM CAPSTONE. (4 HOURS)

Offers students an opportunity to expand skills in real-world application development and team collaboration within an experiential learning structure. Involves students in industry-specific projects designed to integrate into an industry partner's intellectual property portfolio. Projects focus on software design and development and also include written components that align with the partner's standards and reference relevant prior work. Students engage in a structured process of milestones and feedback cycles with peers; instructors; and, as appropriate, industry partners to refine project outcomes.

Attribute(s): NUpath Capstone Experience, NUpath Integration Experience, NUpath Writing Intensive

- EXED 6959. COOPERATIVE EDUCATION INTEGRATED EXPERIENCE. (4 HOURS)

Offers a guided learning opportunity to graduate students to accompany their cooperative education work experience. Under faculty supervision and assessment, students engage in one or more projects related to, but distinct from, their work assignments, or explore topics related to their work experience to enhance their experiential learning. May be repeated twice.

- CS 5964. PROJECTS FOR PROFESSIONALS. (0 HOURS)

Offers students an applied project setting in which to apply their curricular learning. Working with a sponsor, students refine an applied research topic, perform research, develop recommendations that are shared with a partner sponsor, and create a plan for implementing their recommendations. Seeks to benefit students with a curriculum that supports the development of key business communication skills, project and client management skills, and frameworks for business analysis. Offers students an opportunity to learn from sponsor feedback, review 'lessons learned,' and incorporate suggestions from this review to improve and further develop their career development and professional plan. May be repeated twice.

Northeastern University	
Dates	July 8, 2024 - December 13, 2024
Location	Burnes Center for Social Change, 271 Huntington Avenue, 2nd Floor All sessions in person unless otherwise noted
Credit Hours	4 credit hours
Class Meeting Times	Fridays, 10-1 unless otherwise noted
Faculty	Santi Garces, CIO, City of Boston (bio) Erhardt Graeff (bio)

Assignments	Blog Assignments: https://docs.google.com/document/d/1D7x4JpXif2Bwy9RTPIR8wbpXoum4JL7vYmMJqKSpAfs/edit?usp=sharing
Grading	Three written pieces for publication, due dates and details in link above

CO-OP FAQ

Office: You will be expected to be in the Burnes Center office in person three days a week (Tuesday, Thursday, Fridays) . On other days, you may be expected to work from your client. Being together in person is essential for mutual learning and collaboration. We will have professional staff joining you for mentoring and advising. On days that you are not expected to be in the office or with your client, you may work from wherever you like as long as you remain online and available for meetings. Our office is located at:

The Burnes Center for Social Change

2nd Floor

271 Huntington Ave

Boston, MA 02115

Office Hours: 9:30 AM to 5:30 PM

Communication: To enable communication, we will set up AI4impact email addresses and a: 1) Google group / listserv, and 2) a Slack channel for you. Please accept those invitations. We will switch to communicating via those mechanisms.

What are the projects?

Collectively, we anticipate tackling 7 projects this cycle. Projects are still being finalized and might change. Tentatively, they include:

1. EOED

Project Proposal: Business Front Door (BFD)

- **Problem:** Complexity of internal content navigation due to broad, multi-agency management of grant and incentive programs.
- **Project Team:** Santi to help mentor as City of Boston looking at similar project
- **Potential Solution:** An accessible chatbot/search functionality to easily navigate resources on the BFD portal.
- **Additional Details:**

2. EOTSS - Sandbox

Problem Identification: Lack of centralized location for Commonwealth employees to safely experiment using generative AI tools in their work.

Project Team: Composed of AWS Solutions Architects, EOTSS staff .

- **Potential Solution:** A web application allowing users to easily engage with and leverage AI tools.
- **Additional Details:** The solution will provide users with assurance that the data they input does not become publicly available by being used for model training.

3. Executive Office of Administration and Finance - Build for Mass

Problem Identification: Assisting Massachusetts municipalities, environmental justice groups, rural towns, and historically-underserved communities to apply for state grant, grant-matching, and tax-break opportunities

- **Project Team:** Led by Greg Martin, Secretariat CIO, including key team members such as Deputy CIO Dave Pudvah, Assistant CIO Aamir Razzak, and Deputy Chief of Staff Paolo DiFabio, along with necessary IT and strategy personnel.
- **Potential Solution:** Development of an AI-driven tool, designed to simplify the process of locating and applying for state grants and loans. This solution aims to understand user

needs through natural language processing, offering intuitive, multilingual support and potentially assisting with form completion.

- **Additional Details:** The project seeks to address a wide range of demographic groups, with a focus on overcoming barriers such as technology access. It will provide a more user-friendly, efficient, and inclusive approach to navigating state assistance programs, significantly improving the experience for constituents in need.

4. HHS/MEC - MassHealth Helper

Problem Identification: Assisting residents to obtain health insurance by providing public professionals efficient access to comprehensive information to speed their responses to the public.

- **Project Team:** Keith Raboin, Shelley Reynolds, Jessica Perez-Rossello, with collaboration from IT, policy, and training teams.
- **Potential Solution:** An AI-driven knowledge tool for quick access to policy and procedural guidelines, able to deliver accessibly formatted responses.
- **Additional Details:** The tool is expected to improve response quality, accessibility, and be adaptable to policy updates/changes.

5. Link Health - A Healthier Democracy AI

- **Problem:** Helping low-income Massachusetts residents apply for \$80 billion dollars of unclaimed Federal Aid benefits in a healthcare setting. The current process is hindered by a lack of accessible information and application modalities.
- **Project Team:** Through Professor Alister Martin's organization, A Healthier Democracy- not affiliated with the state
- **Solution:** Leveraging AI to provide centralized access to information and increase the accessibility of the application process.

- **Additional Details:** Link Health has helped over 10,000 individuals in receiving monthly benefits. Their current outreach strategies include: messaging eligible patients and approaching potential applicants within waiting rooms. Current partner sites include East Boston, South End, MassGen ED, MGB Community Care Vans, and Dimock Health Center.

6. Massachusetts AI Collaboration for Higher Education (MACH) - The Course Catalog/MA Course Navigator

Project Proposal: Generative AI to Improve enrollment rates and support informed decision-making for prospective students

- **Problem:** Develop an AI-driven platform that mines and aggregates publicly available program offerings and course catalog information from the Commonwealth's 24 community colleges and state universities
- **Project Team:**
- **Solution:** Enable prospective students and their families to easily discover educational pathways, including majors, programs, prerequisites, and transfer opportunities
- **Additional Details:** The project aims to simplify application processes, improve accessibility, and ensure data privacy and fairness. Testing with affected families and service providers is planned for refining the AI tools.

Why these projects?

We selected these projects because of their potential for making real world impact:

- **Enhancing Accessibility:** Leveraging AI transforms complex information into easily accessible formats, breaking language and literacy barriers.
- **Streamlining Critical Services:** By implementing AI solutions, we're simplifying essential public services, making them more user-friendly and efficient.

- **Improving Public Service Quality:** Projects utilize AI to deliver higher quality public services, ensuring equitable access and enhancing user engagement.
- **Transforming Lives through Technology:** Each project harnesses the power of AI to make a real difference in people's everyday lives, offering easier navigation, clearer communication, and better access to essential services.

What project am I on?

You will have primary responsibility for one project and also work cross-functionally across projects based on your skills and experience. We will discuss staffing the projects when the program starts.

Who is supervising us and what mentoring will I get?

We are really excited that this coop uniquely offers clients and partners the opportunity to work with students supported by professional staff. Program mentors and staff include, but are not limited to:

- Senior technical and program lead - Santi Garces ([bio](#))
- Tech mentors
 - Robert Bjarnasson ([bio](#))
 - Steve Midgley ([bio](#))
 - Beth Noveck ([bio](#))
- Project mentors
 - David Fields ([bio](#)) - Co-founder/Partnership lead
 - Erhardt Graeff ([bio](#)) - Research Director, product management
 - Henri Hammond-Paul ([bio](#))
- Regular guest experts, including, but not limited to:
 - Steve Kadish, former Chief of Staff to the Governor of Massachusetts
 - Cory Ondrejka, former technology advisor to the CEO of Google
 - Dave Cole, Chief Innovation Officer, State of New Jersey

- Kai Feder, Chief of Staff, Office of Innovation, State of New Jersey

What is the course we are taking?

You may enroll in a 4-credit skills-based course that complements the co-op.

Are you passionate about making a difference? Want to learn effective ways to tackle pressing global challenges?

Join a diverse community of students and faculty to design, develop, and implement cutting-edge generative AI projects that address real-world challenges and make a tangible impact on the lives of people in our communities.

This course will run parallel to your 6 month co-op with the Burnes Center for Social Change at Northeastern University. In this hands-on, experiential learning program you will develop the skills to leverage generative artificial intelligence to deliver transformative innovations that strengthen democracy, advance education and improve how governments deliver services.

- You should if you haven't already worked with your academic advisor to determine how this will map into your respective academic program and count towards your graduation requirements.
- For undergraduates this is CS 4535; For graduate students, EDEX 6959. We will email you the CRN so you can enroll yourself through Banner, the class is not publicly listed as it's only available to those of you on AI4Impact co-ops. Please stay attentive to email over the coming week so that you receive the CRN and can register ahead of the start of term.
- Questions about billing or financial aid, please see these links and/or speak with your advisor, every student's situation is different:
 - <https://studentfinance.northeastern.edu/billing-payments/tuition-and-fees/>
 - <https://studentfinance.northeastern.edu/policies-procedures/billing-policies/>

What if my mentor doesn't give me enough direction?

You are responsible for "managing up" and asking for help. We expect you to take initiative and take ownership of your projects and the direction of your coop.

How will I get paid?

Enrollment instructions for direct deposit are available on the Student Hub under 'Financial Services'. You won't get paid if you don't submit timesheets. Timesheet Submission is done through Workday. Timely submission is crucial for payroll processing. Please familiarize yourself with the [university's HR system](#) for more details. You can direct any questions to **Fred DeJohn** at fdejohn@thegovlab.org.

What do you expect of me?

- **Results:** Delivery of a human-centered, evidence-based project.
- **Professionalism:** We aim to set high standards in all our endeavors.
- **Co-creation:** Collaboration is key; your ideas and participation are vital.
- **Creativity:** Innovation is our goal. We encourage you to think boldly and originally.
- **Courtesy:** Mutual respect and understanding will be the foundation of our interactions.

What is the Burnes Center and The GovLab?

The Burnes Center for Social Change and its partner project, The GovLab, conducts applied research and implements projects with collaborating institutions, including national, state and local government agencies, global philanthropies, and intergovernmental organizations.

Part think-tank and part public-purpose consulting group, we combine knowledge of the academy, with the innovation of the private sector, to deliver positive social impact on public problems like climate change, racial justice, inequality, and hunger.

Course Objectives/Pedagogical Goals

The goals of the course are to develop both specialized knowledge in generative AI together with applied and experiential learning of problem-solving skills.

- Finish an impactful generative AI project during the course of the coop.
- Develop an understanding of what capabilities are emerging in generative AI platforms and large-language models technology and how to apply those capabilities to real world challenges.

- Develop an understanding of product and management methods needed to design and implement a civic technology project.
- Learn how to prompt and fine-tune a generative AI tool.
- Learn human-centered and participatory methods for problem solving.
- Learn how to communicate with a professional client.
- Learn how to organize a stakeholder feedback session.
- Help you learn to combine subject matter expertise and problem solving skills to address real world problems.

You cannot pass the class if you do not complete the work.

Policy on late work: All work must be submitted in order to complete the course. All assignments must be turned in by December 13, 2024. Failure to turn in required work will result in an automatic incomplete for the course.

Assignments and Grading

Students will be graded on the basis on the quality, creativity, level of effort and completion of their:

- 1) Class participation and teamwork - 25% - We expect all students to attend class in person. Everyone is expected to participate actively, contributing thoughtfully to class discussions and to project collaboration inside and outside of class. If you anticipate any scheduling conflicts during the term (e.g. play rehearsal, sports competition, religious observance), please notify me at the start of term.
- 2) Written work product - 25% - Throughout the semester, there will be occasional short assignments, designed to advance project completion. All assignments are “real” in that they enable us to finish the project for our client. These may be individual or group assignments, You will be expected to complete these on deadline.
 - a) Project Charter
 - b) Technical Memo
 - c) Pitch Deck
 - d) Blog Post (3x)

- 3) Final project deliverables (generative AI tool and descriptive deck and memo) - 50% - You will work together as a team to complete the civic tech project as well as a memo and deck describing the work for publication. We will ensure that each member of the team has an equal amount of work and that assignments are fairly divided up among the team. Final project deliverables are due December 13, 2024 at the end of term.

Additional Course Policies

Northeastern values an inclusive and equitable environment for all our students. I hope to foster a sense of community in this class and consider it a place where individuals of all backgrounds, beliefs, ethnicities, national origins, gender identities, castes, sexual orientations, religious and political affiliations, and abilities will be treated with respect. It is my intent that all students' learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength and benefit. If this standard is not being upheld, you can always feel free to speak with me. I can be reached at egraeff@ai4impact.ai.

Academic Integrity

A commitment to the principles of academic integrity is essential to the mission of Northeastern University. The promotion of independent and original scholarship ensures that students derive the most from their educational experience and their pursuit of knowledge. Academic dishonesty violates the most fundamental values of an intellectual community and undermines the achievements of the entire University.

As members of the academic community, students must become familiar with their rights and responsibilities. In each course, they are responsible for knowing the requirements and restrictions regarding research and writing, examinations of whatever kind, collaborative work, the use of study aids, the appropriateness of assistance, and other issues. Students are responsible for learning the conventions of documentation and acknowledgment of sources in their fields. Northeastern University expects students to complete all examinations, tests, papers, creative projects, and assignments of any kind according to the highest ethical standards, as set forth either explicitly or implicitly in this Code or by the direction of instructors.

Go to <http://www.northeastern.edu/osccr/academic-integrity-policy/> to access the full academic integrity policy.

Student Accommodations

Northeastern University and the Disability Resource Center (DRC) are committed to providing disability services that enable students who qualify under Section 504 of the Rehabilitation Act

and the Americans with Disabilities Act Amendments Act (ADAAA) to participate fully in the activities of the university. To receive accommodations through the DRC, students must provide the Disability Resource Center (DRC) with appropriate documentation that demonstrates a current substantially limiting disability.

For more information, visit <http://www.northeastern.edu/drc/getting-started-with-the-drc/>.

Library Services

The Northeastern University Library is at the hub of campus intellectual life. Resources include over 900,000 print volumes, 206,500 e-books, and 70,225 electronic journals.

For more information, visit <http://library.northeastern.edu/>.

Diversity and Inclusion

Northeastern University and the Office of Institutional Diversity and Inclusion (OIDI) is committed to equal opportunity, affirmative action, diversity and social justice while building a climate of inclusion on and beyond campus. In the classroom, member of the University community work to cultivate an inclusive environment that denounces discrimination through innovation, collaboration and an awareness of global perspectives on social justice. Please visit <http://www.northeastern.edu/oidi/> for complete information on Diversity and Inclusion

TITLE IX

Title IX of the Education Amendments of 1972 protects individuals from sex or gender-based discrimination, including discrimination based on gender-identity, in educational programs and activities that receive federal financial assistance.

Northeastern's [Title IX Policy](#) prohibits sex and gender-based discrimination, including sexual harassment, sexual assault, sexual exploitation, relationship or domestic violence, and stalking. The Title IX Policy refers to sex and gender-based discrimination as "Prohibited Offenses." The Title IX Policy applies to the entire Northeastern community, including students, faculty and staff of all gender identities.

Allegations of Prohibited Offenses can be reported to the Title IX Coordinator within The Office for University Equity and Compliance at: titleix@northeastern.edu and/or through the Northeastern University Police Department (NUPD) by phone: for an Emergency 617.373.3333; for Non-Emergency 617.373.2121. Reporting to NUPD does NOT commit the victim/affected party to future legal action.

Faculty members are considered “responsible employees” at Northeastern University, meaning they are required to report all reports of and information about alleged Prohibited Offenses to the Office for University Equity and Compliance.

If you or someone you know has experienced a Prohibited Offense, confidential support and guidance can be found through ViSION Resource Center (VRC) staff (<http://www.northeastern.edu/vision/visionresourcecenter/>), University Health and Counseling Services (UHCS) staff (<http://www.northeastern.edu/uhrs/>) and the Center for Spiritual Dialogue and Service (CSDS) clergy members (<http://www.northeastern.edu/spirituallife/>). Employees within the VRC, UHCS, and CSDS are not required to report allegations of Prohibited Offenses to the Office for University Equity and Compliance.

In case of an emergency, please call 911 OR NUPD’S Emergency line: 617-373-3333.

Please visit www.northeastern.edu/titleix for a complete list of reporting options and resources, both on- and off-campus.