From zero towards one

Turn ideas into technologies and products that matter

"First comes thought; then organization of that thought, into ideas and plans; then transformation of those plans into reality. The beginning, as you will observe, is in your imagination." - wrote Napoleon Hill, an entrepreneur, author of self-help books, and a conman, in the early 20th century. His point was that innovation requires a certain action-oriented but critical mindset for success and that starting on that journey can often be the hardest part. Whether trying to innovate inside an organization, working on an open source project, or attempting to get a startup off the ground, the tools and techniques discussed in this class will be applicable to increase the chances of success.

Students will be expected to propose and critically evaluate project ideas, form groups, and execute autonomously to achieve objectives. The groups will report directly to the "general manager" (faculty), with biweekly project meetings. Topics covered in the class are organized around four themes:

Ideas and strategy
- Creating, evaluating, and selling ideas
- Understanding the market and predicting its evolution
- Formulating and negotiating project goals

Working in teams
- Iterative development, continuous deployment, testing
- Setting priorities and managing conflict
- Leadership, cooperation, self-reflection, objectivity, commitment

Finding product-market fit
- Understanding and predicting the customer
- The business model: creating and extracting value, go-to-market channels
- Marketing: pitching products to customers and investors

Architecting your product
- Creating focus and conceptual integrity
- Dealing with change and conflicting requirements
- Risk mitigation

Groups and individuals will be expected to deliver multiple presentations during the semester, participate in discussions informed by reading- and listening materials, and deliver on their project's objectives. The class will meet twice weekly and be graded equally based on engagement (projects, discussions, and presentations) and project delivery.

Who should attend? You are a junior or above and have project ideas you want to pursue with a team. You are expected to be able to acquire the necessary technical skills and work within a team setting. Not all project ideas will be pursued; individuals must find their roles within groups. About 30% of the lectures will require in-person attendance, and the rest will be in a hybrid setting.