DEVELOPING GREATNESS

SEVEN CHARACTERISTICS of GREAT INNOVATORS

Being a great engineer takes more than just an education; it takes a great attitude. Engineers often face challenging problems, and without the right mindset, engineering can be a frustrating career.
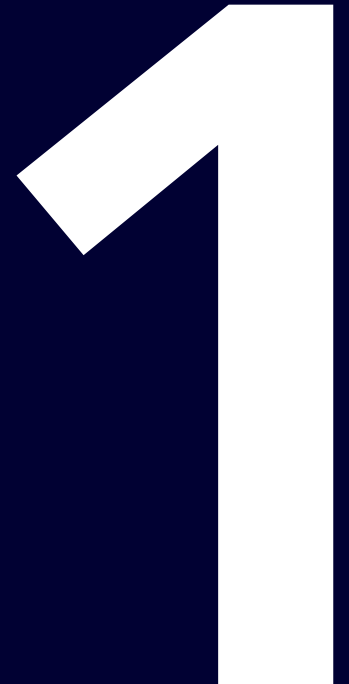
However, great engineers understand that some of the best innovations stem from solving frustrating problems. Are you working to become a great engineer? Here are seven characteristics you should have.

Problem solving skills

Work the problem, find resolutions.

The single most important skill of a great engineer is being able to problem solve effectively. Most of a software engineer's time is spent debugging source code to fix problems. A great engineer will understand how to approach a problem to find the most effective and efficient resolution.

1

Creativity

Don't get stuck in a box.

Engineers are often given objectives which won't necessarily have a clear path to completion. To meet these objectives, a great engineer needs to create something new (and possibly never seen before). To do this, an engineer has to think 'outside the box'. A great engineer can evaluate problems in non-traditional ways and implements ingenious solutions.

2

Lifelong learning

Hit the books...and blogs.

Engineering is a young and constantly evolving discipline that's changing at an incredible rate. To keep up with this change, a great engineer has to have a desire to constantly learn. That means reading books and blogs, attending eLearning courses, conferences and seminars.

3

Communication skills

Talk, listen, learn.

Communicating with colleagues and stakeholders is key to developing great software to meet the needs of a target audience. A great engineer understands their audience and can discuss complex subjects in an engaging and approachable way. They're also not afraid to ask questions to better understand the needs of clients.

4

Tenacity

Stick it out, even if it get sticky.

A great engineer is determined when it relates to their craft and is willing to 'stick with it' until all possible outcomes are exhausted, whether it is debugging existing code or developing novel solutions to challenging problems. If an engineer just threw in the towel when things become difficult, then they'd be starving themselves of opportunities to learn and grow.

5

Ability to accept criticism

Don't take it personally.

There can be many ways to solve problems and not everyone will agree on the best solution. A great engineer can discuss differing ideas and not walk away feeling attacked or with a bruised ego.

Always be open.

Similarly, there are times where engineers need to be shown improvements that eluded them. A great engineer can embrace this criticism and use it as an opportunity to learn and grow.

6

Knack for evaluating technology

Learn the ins and outs, fast.

Engineers are constantly interacting with advancing technology, from traditional computers to appliances to mobile devices and wearables. Each one carries its own intricacies that must be understood to provide the best performance, security and safety.

Recognize the gimmicks and the game changers.

The ability to effectively evaluate technology and understand these intricacies is a critical skill of great engineers. New frameworks and tools are popping up all the time. A great engineer understands how to evaluate these frameworks and tools to discern if it has potential, or if it is just a fad.

7

Takeaways

Find growing room.

If you're going to become a truly great engineer, you need a great company that will support your goals and let you thrive.

Get what you need.

At New Eagle, engineering is the heart and soul of the company. Here, our team has the opportunity grow in excellence through work with innovative clients on next-gen technology. New Eagle supports on-the-job learning and provides engineers with the tools, projects, and team needed to grow personally and professionally.
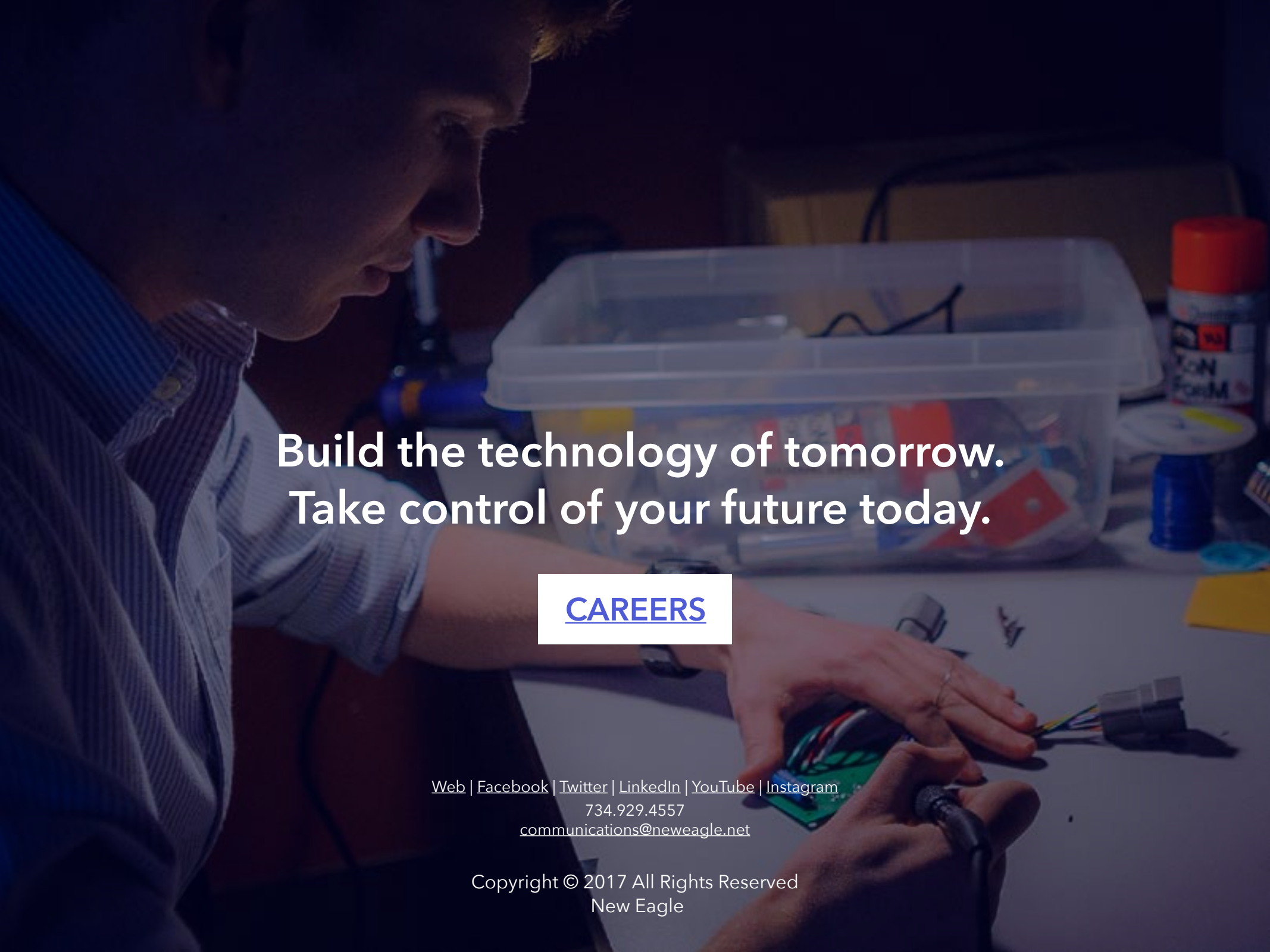
Join a smart, savvy crew.

Are you ready to become a great engineer? Join a company that will help you get there. Take control of your future. Become a part of the New Eagle team, and help us build tomorrow, today.

About the author

Ryan Borchert is a senior software engineer at New Eagle, a company in Ann Arbor, Michigan that specializes in creating, integrating and providing mechatronic control systems for emerging technologies. He uses his years of software development experience to help New Eagle develop the custom software solutions it needs to build tailored control systems for its clients.

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