
CAREERS IN
ENGINEERING
Creating Solutions to Change the World
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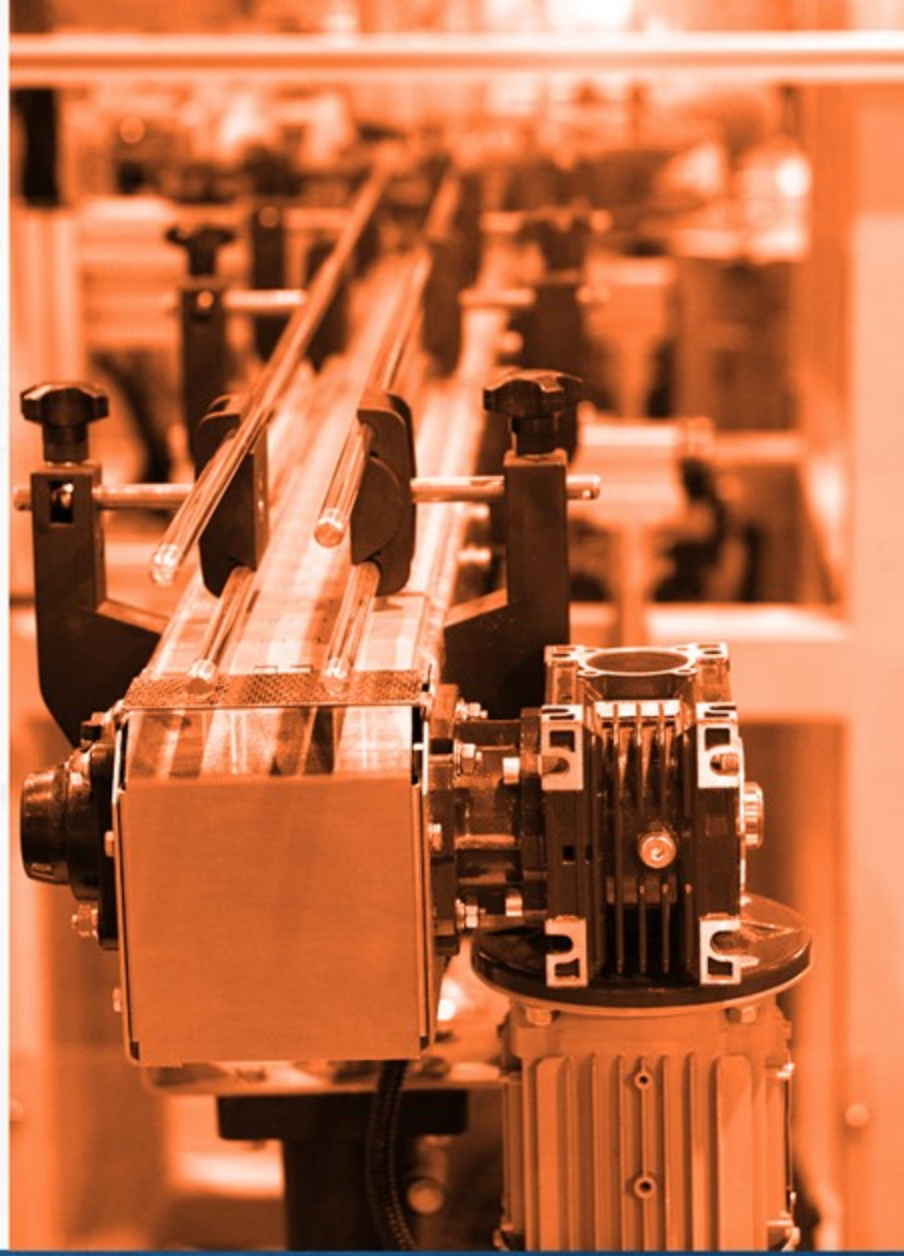
"Engineers are the sole reason for the growth of human civilization, who took living comfortably to another level. Every niche within engineering has contributed to almost every aspect of our lives. With the rise in technological advancement, this demand and necessity of engineers are only increasing."

~ Market Business News, 2019



ENGINEERING FACTS

(NATIONAL DATA)

1. In 2020 there were 2.5M engineers in the workforce, with an average salary of $96,310

2. Engineering occupations are projected to grow 7% from 2020 to 2030

3. 87% of engineers are happy with their jobs, compared to 65% of all employees in U.S.

TOP SKILLS NEEDED FOR ENGINEERING

- Being a good leader, assessing risk, and taking initiative is essential.
- Able to communicate effectively is key
    - Engineers have more technical and complex understanding of things, but not everyone you work with will have same level of knowledge.
- Creative and collaborative
    - Find new ways to solve problems, working individually and with a team.
- Excellent project and process management is vital.
- Being good at math – specifically statistics
    - In every role and every step of the process, engineers need to know statistics in one form or another from rudimentary statistics to quantum mechanics.

The Many Types of Engineering

Let's shed light on the vast array of careers that exist in the industry

Mechanical Engineer

A mechanical engineer works with a wide array of machines and dabbles in the laws of thermodynamics, stress analysis and technical drawing.

Mechatronics Engineer

Mechatronics engineers work with all kinds of smart machines, from car assembly robots to human and medicine interaction.

Electrical Engineering

Electrical engineers focus on the use of electricity and the large-scale supply of electrical power.

Machinist

Also called an operative, a machinist is someone who handles the operation of a machine, meaning they can maintain, assemble and disassemble.

Engineering Fitter

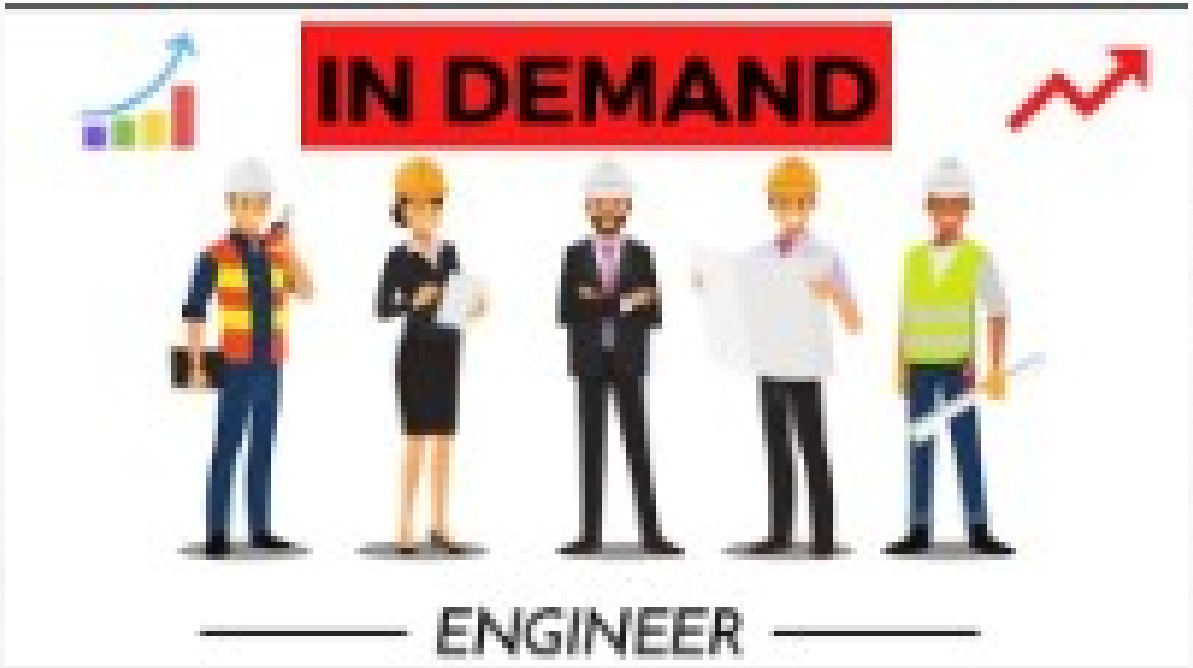
Fitters work in a whole range of industries fixing all kinds of machines, including high-speed trains.

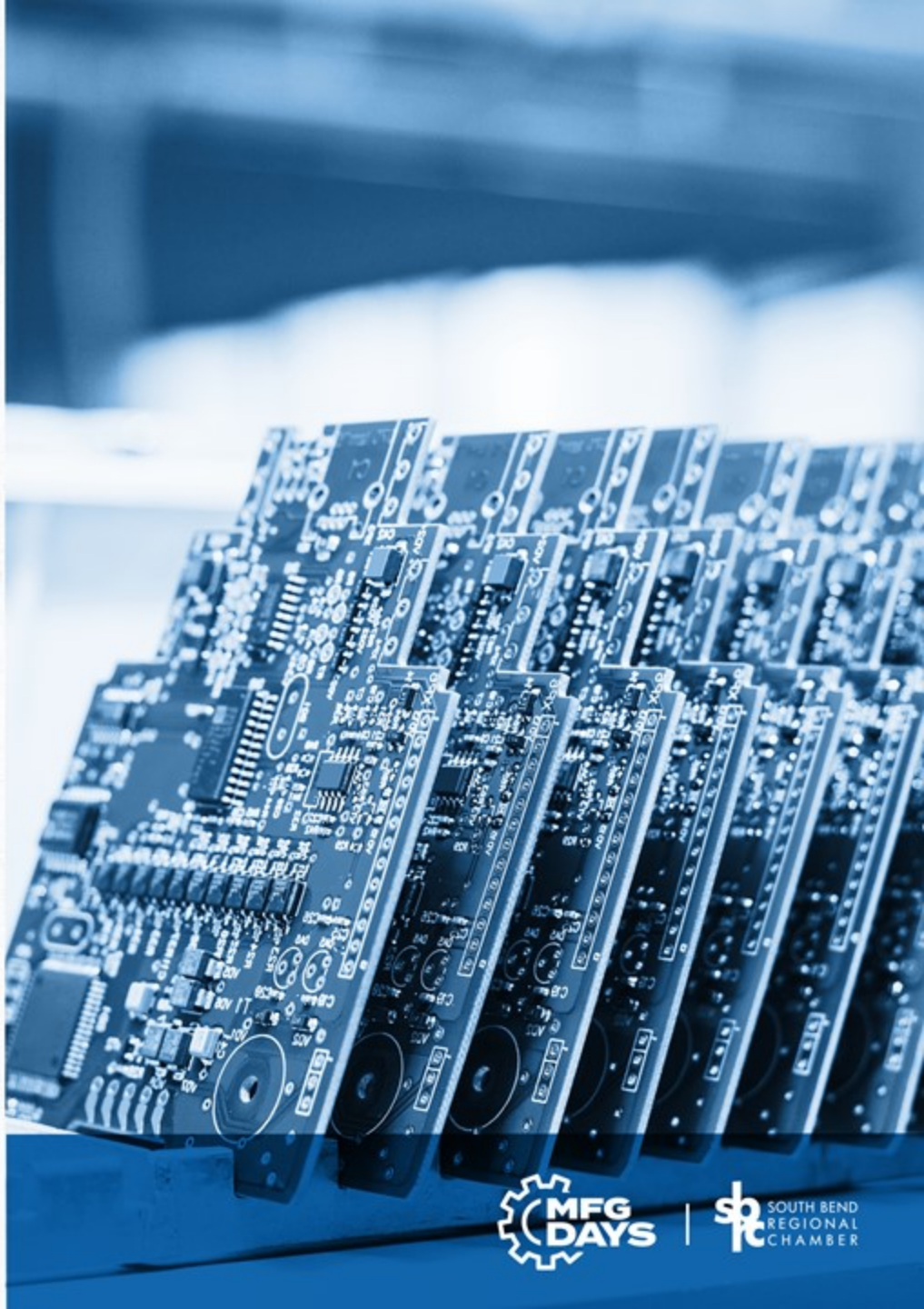
Fabrication & Welding

Fabrication and welding involves the process of forging two materials together to form machines using raw materials.

LEARN ABOUT THE 10 MOST IN DEMAND ENGINEERING FIELDS

- Detailed descriptions, salary, projected growth, job responsibilities
- Understand job postings and type of engineers hiring
- What is driving demand by type of engineer?





A CLOSER LOOK:

INDUSTRIAL ENGINEERING

- Find ways to eliminate wastefulness in production processes.
- The Bureau of Labor and Statistics projects a 14% growth in job openings from 2020 to 2030.
- Median annual wages by top industries
  - Professional, Scientific, and Tech Services = $98,680
  - Computer & electronic product manufacturing = $94,700
  - Transportation equipment manufacturing = $91,790
  - Machinery Manufacturing = $84,780
  - Fabricated metal product manufacturing = $77,940
- Visit the Industrial Engineering Pathway Page to learn more!

A CLOSER LOOK:

MECHANICAL ENGINEERING

- Research, design, develop, build, and test mechanical and thermal sensors and devices, including tools, engines, and machines.
- 7% projected job growth from 2020 to 2030 - with 20,200 openings annually.
  - Scientific research & development services = $104,260
  - Computer & electronic product manufacturing = $97,180
  - Transportation equipment manufacturing = $92,650
  - Architectural, engineering, & related services = $91,590
  - Machinery Manufacturing = $84,780
  - Fabricated metal product manufacturing = $77,940
- Visit the Mechanical Engineering Pathway Page to learn more!

A CLOSER LOOK:

ELECTRICAL ENGINEERING

- Design, develop, test, and supervise the manufacture of electrical equipment.
- 7% projected job growth from 2020 to 2030 - with 20,200 openings annually.
  - Scientific research & development services = $104,260
  - Computer & electronic product manufacturing = $97,180
  - Transportation equipment manufacturing = $92,650
  - Architectural, engineering, & related services = $91,590
  - Machinery Manufacturing = $84,780
  - Fabricated metal product manufacturing = $77,940
- Visit the Electrical Engineering Pathway Page to learn more!

TOP 9 REASONS TO BECOME AN ENGINEER

(InterestingEngineer.com)

- You can use your creativity every day.
- Many opportunities to travel the world.
- High salaries for life
- Engineers have a huge impact on the world.
- Never be out of a job
- Hands-on, fun work
- Work in different departments
- Open job market – work where you want & in the industry of your choice
- Learn how to make awesome things

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WHY WE NEED ENGINEERS NOW MORE THAN EVER

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THANK YOU TO OUR REGIONAL CHAMPIONS!

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RESOURCES

https://www.machinedesign.com/learning-resources/article/21837044/is-the-engineering-profession-still-a-good-job

https://whattobecome.com/blog/job-satisfaction-statistics/

https://marketbusinessnews.com/world-needs-more-engineers/221306/

https://www.topuniversities.com/student-info/careers-advice/why-demand-engineering-graduates-rise

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https://interestingengineering.com/top-9-reasons-to-become-an-engineer

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