

# JAMES M. MURPHY

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## Highlights

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- 1 year of full-time coding experience
- Demonstrated ability to write complete CRUD apps using Javascript, React and Node.js
- Enthusiastic and hard-working
- Masters degree and 12 years of Mechanical Engineering experience
- 22 US patents

## Coding Experience

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Full Stack Developer Program      EvolveU, Calgary, Alberta      Sep 2020 - Feb 2021

6-month web developer bootcamp, centered on project-based learning:

Project 1 – Resume Website – HTML, CSS and TailwindCSS

Project 1B – Style Guide – HTML, CSS, TailwindCSS and Vue.js  
– applying the UI principles of “Refactoring UI”

Project 2 – Catalog of EvolveU Student Projects – Javascript and React

Project 3 – ‘2½-Dimensional Mindmap’  
– Wrote thousands of lines of Javascript and React  
– Node.js, Express, Axios and MongoDB for back-end  
– Agile/Scrum process flow, Git version control

Embedded Developer      The Delphi Group, Calgary, Alberta      2013 – 2015

6-month full-time coding project within a large Calgary-based energy company

- Learned and applied Visual Basic for Excel to create a detailed model of supply and demand of the New England renewable energy credit market. Validated this model.

## Other Experience (Highlights Only)

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| Mechanical Engineer   | Dynamic Air Shelters, Ltd., Calgary, Alberta | 2019        |
| <ul style="list-style-type: none"><li>• Implemented and validated 2 numerical methods for calculating the strength of air-inflated beams.</li><li>• Managed a team of 7 to assemble load fixtures and perform load tests. Mentored a junior engineer.</li></ul> |  |             |
| Chemical Engineer   | Carbon Engineering (CE), Calgary, Alberta    | 2015 – 2016 |
| <ul style="list-style-type: none"><li>• Designed CE's fuel synthesis system. Built a detailed computer model of this system and wrote a feasibility assessment, resulting in CE being awarded \$3.75 million in funding.</li></ul>                              |  |             |
| Management Consultant   | The Delphi Group, Calgary, Alberta           | 2013 – 2015 |
| <ul style="list-style-type: none"><li>• Created software tools using Excel VBA, assessed energy technologies and projects, and wrote energy policy briefs. Clients ranged from start-ups to large oil &amp; gas companies.</li></ul>                            |  |             |
| R&D Engineer  | Seagate Technology, Longmont, Colorado       | 1997 – 2004 |
| <ul style="list-style-type: none"><li>• Invented and developed new hard drive technologies, such as piezoelectric suspension actuators. Three of these inventions are now used in millions of drives worldwide.</li></ul>                                       |  |             |

## Education

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|---|---|-------------|
| Masters of Science – Resources & Environment  | U. British Columbia, <a href="#">IRES</a> | 2009 – 2012 |
| Masters of Engineering – Mechanical Engineering   | U. Colorado, Boulder                      | 1998 – 2001 |
| <ul style="list-style-type: none"><li>• Completed studies while working full-time. Earned 'A's in all classes</li></ul>                                       |   |             |
| Bachelor of Engineering – Mechanical Engineering  | U. Queensland, Australia                  | Eons Ago    |
| <ul style="list-style-type: none"><li>• Awards for top student in Mech. Engineering, Best Thesis in Engineering, and top 1% of university graduates</li></ul> |   |             |

## Patents and Training

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- 22 US Patents awarded. First inventor for 13 of these. e.g. USPTO # [6388842](#), [6157522](#)
- 'Brown Belt' in Six Sigma statistics