

# Timothy R. Burchfield

COMPUTER SCIENCE · NOTRE DAME

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## Education

### University of Notre Dame

NOTRE DAME, INDIANA  
• Current GPA: 3.90

*Computer Science and  
Cybersecurity Concentration  
Aug. 2016 - Exp. May 2019*

## Experience

### Basekernel

PROFESSOR DOUGLAS THAIN

- Contributor for basekernel, an minimal kernel based on the idea of hierarchical containment.
- Designed user-level shell.

*Notre Dame, Indiana  
Jan. 2018 - Present*

### South Bend Code School

FRONTEND WEB DEVELOPER

- Web Developer consulting with local companies through South Bend Code School.
- Atlas3D - Main developer on Vue.js single page app which interfaces with GraphQL database.
- Notre Dame Benefits page - Assistant developer on internal Pug (formerly Jade) static site.

*South Bend, Indiana  
Aug. 2017 - Present*

### Fermilab

DATA ANALYSIS & VISUALIZATION INTERN

- Improved the data reduction and visualization pipeline for a new type of telescope camera in Python.
- Collaborated with a team of about 20 on the camera's data processing, error analysis modules, and documentation.

*Batavia, Illinois  
Jun. 2015 - Jul. 2015*

## Skills

LANGUAGES, TOOLS, & OPEN SOURCE CONTRIBUTION

- Python, C, C++, MATLAB, Verilog, JavaScript.
- Linux, Git, Node, Bash, VueJS, GraphQL.
- Borg contributor (>3300 stars on Github), Cursello manager, Devkit contributor.

MISCELLANEOUS

- Systems programming, functional programming, multiprocessing, memory management, system calls, networking.





## Honors & Awards

UNIVERSITY OF NOTRE DAME

2016 - Present **Suzanne and Walter Scott Scholars Program**, Awarded to students in the top 3% of the admitted class "who have demonstrated outstanding academic achievement [...] and who are committed to service in their communities".

2016 - Present **Dean's List**, Top 30% GPA in College of Engineering.

## Projects

Manager	<b>Cursello</b> , Curses-based task tracking client.	 cursello
Contributor	<b>DevKit</b> , Core code toolkit for software developers.	 cursello
Documentation Contributor	<b>BorgBackup</b> , Deduplicating backup program. (>3000 stars on Github).	 cursello
Team member	<b>Language Net</b> , Proof of concept neural network to teach machine learning.	 language-netral

## Extracurricular Activity

### Linux User Group of Notre Dame

MEMBER & VICE PRESIDENT

- Organizes talks from members, faculty and guests.
- Plans projects and events.

*Notre Dame, Indiana  
Aug. 2016 - Present*