

# 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*

*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, and implemented system calls.
- 📄 [Basekernel](#)

*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

- Python, C, C++, Javascript, MATLAB, Verilog, Scheme.

TOOLS & MISCELLANEOUS

- Linux, Git, Bash,  $\text{\LaTeX}$ , HTML/CSS, Apache, Nginx, VueJS, GraphQL, Firebase, Pug/Jade.
- Systems programming, functional programming, multiprocessing.

## 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.	📄 <a href="#">Cursello</a>
Contributor	<b>DevKit</b> , Core code toolkit for software developers.	📄 <a href="#">DevKit</a>
Contributor	<b>BorgBackup</b> , Deduplicating backup program. (>3000 stars on Github).	📄 <a href="#">BorgBackup</a>
Team member	<b>LanguageNet</b> , Proof of concept neural network to teach machine learning.	📄 <a href="#">LanguageNet</a>

## 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*