Timothy R. **Burchfield**

COMPUTER SCIENCE · NOTRE DAME

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Education

University of Notre Dame

NOTRE DAME, INDIANA

Computer Science and Cybersecurity Concentration

Aug. 2016 - Exp. May 2019

- Current GPA: 3.90

Experience

Basekernel
PROFESSOR DOUGLAS THAIN

Notre Dame, Indiana
Jan. 2018 - Present

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

South Bend Code School
FRONTEND WEB DEVELOPER

South Bend, Indiana
Aug. 2017 - Present

- 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.

Fermilab
DATA ANALYSIS & VISUALIZATION INTERN

Batavia, Illinois
Jun. 2015 - Jul. 2015

- 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.

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

Extracurricular Activity

Linux User Group of Notre Dame
MEMBER & VICE PRESIDENT

Notre Dame, Indiana
Aug. 2016 - Present

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