

## JOHN ALBERS

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<https://github.com/jalberss>

<https://JohnAlbers.me>

+1 (308) 379-3515

### EDUCATION

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- Sep 2014 – June 2019 **NORTHWESTERN UNIVERSITY** Evanston, IL  
*Bachelor of Sciences/Master of Sciences in Computer Science*  
3.73/4.00 GPA
- Minor in Business German
- Sep 2017 – Dec 2017 **ETH ZURICH** Zurich, CH  
*Exchange Semester in Computer Science*

### WORK EXPERIENCE

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- Jun 2018 – Present **Northwestern University** Evanston, IL  
*Undergraduate Researcher, Prescience Lab*
- Ported NESL Programming Language to Nautilus Aerokernel
  - Audited software for exploitable, programmer-induced errors
- Jun 2017 – Aug 2017 **Stroz Friedberg** New York, NY  
*Cyber Summer Associate*
- Augmented security assessments by addressing Active Directory misconfigurations
  - Engineered Powershell and Python scripts to automate parsing and security scanning tasks
  - Constructed intricate cloud-based corporate networks for virtual security assessments
- Sep 2015 – Present **Northwestern University** Evanston, IL  
*Teacher Assistant (Data Structures, Intro to Programming, and Intro to Computer Systems)*
- Worked with Professors to prepare, grade, and critique exams
  - Led various office hours and tutorial sessions

### PUBLICATIONS

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#### **Breaking Down Barriers: Paths to Fast Thread Synchronization on the Node**

C. Hetland, G. Tziantzioulis, B. Suchy, M. Leonard, J. Han, **J. Albers**, N. Hardavellas and P. Dinda  
28th International Symposium on High-Performance Parallel and Distributed Computing (**HPDC**),  
Phoenix, Arizona, June 2019 (Acceptance Rate: 20%)

### PROJECTS

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- S-1 Data Scraper** New York, NY  
*Templar Advisors*
- Designed a Rust application to aggregate, categorize, and write SEC EDGAR data weekly
  - Supplemented script with Bash scripting for almost total automation
- IP/UDP Stack** Zurich, CH
- Engineered an IP/UDP stack in C for a fork of the Barrelfish Operating System
  - Constructed RPCs to transfer UDP payloads between processes on different cores
- Design, Thinking, and Communication** Evanston, IL  
*Rehabilitation Institute of Chicago (RIC)*
- Collaborated with a client who recently suffered from a stroke to develop a nail painting device
  - Developed a device for RIC that allows wheelchair users to self-catheterize

### SKILLS

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#### **Programming Languages**

- Most experience with C and Rust
- Proficient in C++ and Racket
- Familiar with Python, NESL, and Haskell

#### **Spoken Languages**

- Intermediate Proficiency in German