

# PETER K. SHULTZ

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## EDUCATION

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### University of Michigan

*Honors Program, College of Literature, Science, and the Arts*

Majors: Computer Science, Economics

GPA: 3.15 / 4.00

Thesis: "Modeling the Outcome of Software Security Vulnerability Sales"

Extracurriculars: MHacks, Amateur Radio Club, gEECS, MEconomics

August 2014 - May 2018

*Ann Arbor, MI*

## WORK EXPERIENCE

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### Microsoft

*Program Manager*

October 2018 - Present

*Redmond, WA*

- Working on Azure Batch, GPUs, FPGAs, and high-performance computing.

### Microsoft

*Program Management Intern*

May 2017 - August 2017

*Redmond, WA*

- Built end-to-end lambda architecture solutions made entirely of Azure services.
- Developed a testing framework for measuring the performance of Azure SQL Data Warehouse in micro-batching and near-real time analytic scenarios.
- Implemented an asynchronous event generator capable of delivering 10,000,000+ messages per minute  $\pm 1\%$ .
- Researched and pitched recommendations for improving Azure SQL Data Warehouse performance.

### Microsoft

*Explorer Intern*

May 2016 - August 2016

*Redmond, WA*

- Interviewed 14+ product managers to determine major pain points with customer engagement platforms.
- Researched technology stacks; implemented front-end and back-end portions of a Django web application with SQL Server on Linux and pure CSS; developed scripts for teammates to simplify environment set-up.
- Implemented a continuous integration and continuous deployment suite using GitHub, Travis CI, and Microsoft Azure.
- Designed mockups; created documentation; evangelized product and recruited future maintainers.

### Modelshop

*Software Engineering Intern*

August 2015

*West Caldwell, NJ*

- Implemented an open source visualization library supporting technologies like `d3.js` and `three.js`.
- Developed a Java client to interact with an open source library's REST API.
- Implemented a cluster computing engine 100 times faster than Hadoop MapReduce to handle large-scale data processing.
- Researched a library of more than 6 advanced machine learning and statistical algorithms: linear models, naive Bayes, decision trees, isotonic regression, k-means, and artificial neural networks.

### TMC Bonds

*Applications Development Intern*

May 2015 - July 2015

*New York, NY*

- Created a monitoring and alerting framework capable of handling 160,000 distinct metrics per minute.
- Configured 4 open-source collection and visualization tools for use in 20+ software environments.
- Wrote 18 pages of detailed documentation outlining the framework.
- Determined 7 key metrics responsible for determining system health.

*Note: TMC Bonds is a subsidiary of Bank of America Merrill Lynch, Citi Global Markets, and Morgan Stanley.*

## ADDITIONAL INFORMATION

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### Computer Languages

C++, Python, Java, Bash, SQL, HTML, CSS, Objective-C, Lua,  $\LaTeX$

### Tools & Programs

Visual Studio, Xcode, Vim, Git, GitHub, Docker, Travis CI, Tableau

### Hackathons

Uncommon Hacks (University of Chicago): received top prize for facial emotion recognition headset.

Childish Gambino SXSW Hackathon: 1 of 11 selected to program in Austin, TX for the eminent rapper in 2014.