# Daniel Volz

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**Experience**

**Oracle**                                    **Software Engineer**                              **August 2015 – Present**

Virtual Operating System (VOS) development for the Oracle Autonomous Database Cloud portable, high-performance platform. Currently focused on the interprocess communication framework and network tools.

**Micron Technology**                    **Software Engineer Intern**                    *May 2013 – August 2015*

*Automata Processor* (May 2014 – May 2015)
- Significant speedups and real-time processing of regular expressions, bioinformatics, NLP, and other machine learning tasks.
- Small research team funded by Micron developing a groundbreaking non-von Neumann architecture.

*MicroMate Platform* (Summer 2013)
- UI tool used for analyzing NAND and DRAM memory.
- Development of Micron's algorithmic pattern generation language compiler.

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**Education**

**Rice University**

*Master's Electrical Engineering, Specialized in Computer Engineering*          (Graduated May 2015)
- George R. Brown School of Engineering – **GPA: 3.98**

*B.S. Electrical Engineering, Specialized in Computer Engineering*          (Graduated May 2014)
- Graduate Coursework:
  - Advanced Object-Oriented Design
  - Algorithm Analysis and Design
  - Computational Photography
  - Advanced VLSI Design
  - High Performance Computer Architecture
  - Computer Networks
- Undergraduate Coursework:
  - Operating Systems
  - Mobile Device Applications (iOS)
  - Computational Thinking in Python
  - Mobile Embedded System Design
  - Innovation Lab - Mobile Health
  - Random Signals

**Jacobs University** – Bremen, Germany (Spring 2012)

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**Projects**

**Rebel Putter - iOS Application**
- Lead developer of app targeting solution for improving golf putt accuracy.
- Augmented reality for enhanced real-world analysis

**Fast SIFT-Based 3D Medical Image Registration**
- Accelerated MRI registration speeds 10x the speed of existing solutions using GPU hardware.
- Implemented system at UT Health Science Center.
- **Awards:** Ken Kennedy Institute Research Award  and Bill Wilson ECE Senior Design Award

**RehabMe Mobile and Cloud Platforms**
- Lead developer of platforms designed to motivate patients to perform their in-home rehab exercises.
- Mobile and cloud platforms connect patients and therapists remotely

**NASA Student Launch Initiative – Electrical Team Lead**
- Designed a sensor to measure change in magnetic field to calculate acceleration.

**Paintr - iOS Application**
- Computer vision based Van Gogh filter. Available for free on the App Store.

**Operating System Kernel**
- Unix-based OS file system, scheduling, and concurrent process synchronization.

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**Volunteering**

**Ballard Food Bank**    (Jan 2017 - Present)          **NASA K-12 Outreach**    (Spring 2013)
**Haiti Health Initiative** (Jan 2015 - Present)          **Aurora Youth for Success** (July 2012)