Daniel Volz

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Experience

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

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

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)

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

- Photo processing app with computer vision based Van Gogh filter.

Operating System Kernel

- Unix-based OS kernel, file system, scheduling, and concurrent process synchronization.

Volunteering

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