Braam Beresford

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Education

Oregon State University **Expected Graduation 2021**

Bachelor of Electrical and Computer Engineering, Honors College, GPA 3.84 *2017-Present*

Planned minor in Computer Science. Member of Eta Kappa Nu and Tau Beta Pi.

Experience

Hewlett Packard

Integrated Circuit Test Engineering Intern *Summer 2019*

- Developed new testing suite resulting in significant cost and 85% time reduction
- Qualified consistency and accuracy of the new suite using Teradyne testers and JMP statistical software
- Created detailed statistical comparisons between existing and new testing program
- Pushed change through HP's work stream change procedure to eventually deploy to production
- Interpreted probe card schematics and PCB layouts

Sensors and Integrated Microelectronics Laboratory

Oregon State University *2019-Present*

- Exploit physical characteristics of Avalanche diode for random number generator
- Use FPGA as control unit of generator characteristics
- Use NIST based statistical analysis to understand source bias
- Develop debiasing algorithm in software with the goal of implementing on FPGA

Oregon State University

Electrical Fundamentals Teacher's Assistant *2020-Present*

- Teach students new concepts DC electrical concepts
- Help students understand and debug hands on labs
- Hold office hours and teahc review sessions for exams

Personal Project

MIPS SystemVerilog Microarchitecture Implementations *Present*

- Implementing various CPU designs (single stage, multistage, etc.)
- Run designs on FPGA with output to seven segment display
- Write test benches to check simple opcodes
- Strong interest in digital logic design
- `https://github.com/braamBeresford/SystemVerilog-Projects`

Center for Applied Systems and Software

Software Developer *2018-2019*

- Full stack development (C#, Typescript, HTML, SQL Server)
- Worked on ASP.NET backend based on MVC architecture
- Helped with time and cost analysis

Clubs

Association for Computing Machinery: Officer in OSU's ACM chapter

Classes & Skills

Classes: Digital Logic Design, Electronics, Computer Organization and Assembly, Signals and Systems

EE: SystemVerilog, FPGA, Quartus, ModelSim, Oscilloscope, IGXL, JMP

CS: C/C++, GDB, Data Structures, Python, UNIX, Git, LaTeX, C#