

Samuel Villarreal

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EDUCATION

University of Southern California	May 2019
M.S. Computer Science	
University of California, Riverside	June 2015
B.S. Computer Science	

RELEVANT COURSEWORK

Software: Object-Oriented Programming, Algorithms and Data Structures, Operating Systems, Concurrent Programming and Parallel Systems, Database Management Systems, Information Retrieval, Computer Security, Software Engineering, Compilers, Mobile Wireless Networks, Computer Networks
Hardware: Logic Design, Embedded Systems, Design and Architecture of Computer Systems, Circuit Analysis
Theory: Discrete Structures, Combinatorics, Theory of Automata

WORK EXPERIENCE

Software Engineer at Jet Propulsion Laboratory, Pasadena	August 2015 – Present
Simulation and Support Equipment Group	

- Extending functionality of simulation software facilitating product development

Software Engineer Intern at Jet Propulsion Laboratory, Pasadena	June 2014 - September 2014
Simulation and Support Equipment Group	

- Analyzed and Identified C++ code base architecture assumptions for future mission support

Research Assistant at University of California, Riverside	January 2014 - March 2014
Assistant to Dr. Zizhong (Jeffrey) Chen with interest in High Performance Computing	

- Implemented soft error correction techniques in matrix multiplication using C for analysis

PROJECTS

Psyche SSE	March 2020 – Present
Developing new generation simulation models	

- Analyzing and implementing models and capabilities with Stakeholder input of project specific simulations (DSOC, Dock and third party integration)
- Post launch lead of software maintenance phase responsible building, releasing and addressing project leadership concerns

Mars 2020 SSE	Aug 2015 – Aug 2020
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Developing new features and simulation models desired by Project Stakeholders

- Analyzing and implementing five science payload models for requirement compliance of SSE Venues
- Assisting Lead in processing DPFR bug fixing and improving performance
- SSE representative and acting liaison at the Testbed Daily Meetings answering, reviewing and elevating issues of SSE importance.

TECHNICAL SKILLS

Operating Systems: Windows, Linux (CentOS/Mint/Fedora), OS X

Programming Languages: C++, C, Python, Java, HTML/CSS, PostgreSQL

Applications: Latex, Xilinx ISE, GitHub, Atmel Studio, Visual Studio, Geany, Vim, Android Studio, SVN

Natural Languages: Bilingual: Spanish and English

PROFESSIONAL AFFILIATIONS

Institute of Electrical and Electronics Engineers(IEEE), National Member	2013-Present
Association of Computing Machinery(ACM), Chapter Member	2013-Present