

Sathyam Mohanram Vellal

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Seeking opportunities for Summer 2017 in Software Development and Computational Software Development

EDUCATION

University of Southern California , Los Angeles, CA	August 2016 - May 2018 (expected)
<i>Master of Science (M.S.), Computer Science</i>	Focus: Scientific Computing
Relevant Courses: Analysis of Algorithms, Methods of Computational Physics	
PES University , Bangalore, India	August 2010 - June 2014
<i>Bachelor of Engineering (B.E.), Computer Science & Engineering</i>	Focus: Parallel Computing

SKILLS

- | | |
|------------------------|---|
| • Proficient In | C/C++, Java, Python, JavaScript, Shell, Linux, Git, \LaTeX , Matlab |
| • Familiar With | OpenMP, MPI, Matlab, OpenGL, MySQL, HTML/CSS, ES6, Node.js, React-Native, Android |

WORK EXPERIENCE

PAYPAL INC., Bangalore, India

SOFTWARE ENGINEER	June 2014 - July 2016
<ul style="list-style-type: none">Analysed and worked towards tapering false positives in detection of fraudulent transactions, directly impacting annual revenue.Design, implementation and support of the Free Return Shipping web flows, both activation and product experiences.Design and implementation of a multi-faceted Mobile Wallet solution for the Telcel Pay and Claro Pay white-label apps.Also involved in realisation of product design, enhancements and support to other products, technical support during events.	

SOFTWARE ENGINEER INTERN	Jan 2014 - June 2014
<ul style="list-style-type: none">Analysis and research of the existing (at the time) Payouts Experience (known as MassPay).Prototyped and contributed to the Next-Gen Payouts Experience with enhanced UX and modern webtools on the Node.js stack.	

BOOST C++ LIBRARIES, (done remotely)

CONTRACT DEVELOPER, GOOGLE SUMMER OF CODE	June 2013 - Aug 2013
<ul style="list-style-type: none">Developed a new aligned memory allocator and modified core functionality of the library to enable auto-vectorisation.Implemented efficient BLAS routines, like GotoBLAS Matrix-Matrix multiplication and more, to boost library's performance.With benchmarks using standard algorithms, captured the increase in library's performance from my contributions.	

SELECTED PROJECTS

LOGIC INFERENCE ENGINE , Author	November 2016
<ul style="list-style-type: none">Built an inference engine based on first-order logic, to take in a set of rules/sentences as input, and breakdown the rules to build a Knowledge Base, which then can be queried with sentences for truths in that world.The inference engine, at first, simplifies every rule into CNF and uses the resolution by refutation algorithm.	

SMART PERSONAL ASSISTANT , Co-Author	Jan 2014 - May 2014
<ul style="list-style-type: none">Developed a self-learning intelligent mobile assistant to assist users with common-tasks in day-to-day activities.The assistant detected and prioritised important SMS and Emails, by accommodating to user's schedule.It also featured "Smart Alarms", to find best possible time to set alarms based on the user's calendar and sleep time.	

ENHANCING O A.D. GAMEPLAY AI , Co-Author	Aug 2013 - Dec 2013
<ul style="list-style-type: none">Contributed to the runtime simulation of the AI Bot for O A.D. game to improve its "thinking" abilities.Enhanced the AI for better military, economic and attacks decision making. Also improved opening strategies.	

PYOMP , Co-Author	Aug 2013 - Dec 2013
<ul style="list-style-type: none">Using decorators, introduced OpenMP-like directives for Python, to provide for a simpler parallel programming interface.Implemented <i>Parallel</i>, <i>Single</i>, <i>Task</i>, <i>For</i> and <i>Section</i> directives of OpenMP, along with specifying no. of threads.Using benchmarks with standard algorithms, measured performance and found it to be promising at significantly large inputs.	