

# Shreyas Vinod

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SYNOPSIS	I revere the indefinite complexity of the universe and the human mind. I am on a quest to understand neural networks and their silicon counterparts and an inquisitive passion for engineering and robotics and a strong admiration for the field of Computer Science as a whole. Understanding what gravity does is uninteresting. Why – on the other hand, must be beautiful.		
ACADEMIA	<b>Politechnika Warszawska</b> , Warsaw, PL	2015 – present	
	<i>B.Sc., Computer Science year 1 GPA: 4.4/5.0</i>		
PROGRAMMING	C/C++ ( <i>preferred: several ten thousand lines</i> ); Python; Verilog; Java		
NOTEWORTHY PROJECTS	<b>Elise</b> <i>control automation for ROVs and multirotors on embedded platforms</i>	ongoing	
	<ul style="list-style-type: none"><li>Designed for AHTI, an underwater ROV.</li><li>Scalable and adaptable to multirotors and related platforms.</li><li>Multithreading capable to maximise performance of embedded platforms.</li><li>Handles a plethora of sensors, including inertial measurement for PID control.</li><li>Self-stabilisation and movement algorithms.</li><li>Integral displacement calculation.</li></ul>		
	<b>Cortex</b> <i>fast and lightweight bitboard UCI chess engine in C++</i>	December 2014	
	<ul style="list-style-type: none"><li>Minimax with alpha-beta pruning and quiescence search.</li><li>Uses processor-native 64-bit integers, or 'bitboards'.</li><li>GCC's low level pre-built functions: incredibly fast move generation.</li><li>Search efficiency using heuristics such as MVV-LVA and null move pruning.</li><li>Zobrist hashing and transposition tables for efficient search.</li><li>Simple, but effective static evaluation for roughly 2000 elo.</li><li>Universal Chess Interface (UCI) GUI protocol supported.</li><li>Intended to be upgraded to self-learning using dynamic evaluation.</li></ul>		
	<b>Neptune</b> <i>16-bit custom RISC architecture microprocessor in Verilog</i>	October 2013	
	<ul style="list-style-type: none"><li>Originally designed on a Xilinx Spartan 6 FPGA.</li><li>Microcoded by hand atop a custom MIPS-like architecture.</li><li>Handmade serial display segments with custom protocols.</li><li>Human-readable instruction set.</li><li>Intended to teach introductory assembly to fellow students.</li></ul>		
NOTEWORTHY MISCELLANEOUS	<b>MATE Underwater Robotics Competition</b> , Long Beach, CA, US	upcoming	
	<ul style="list-style-type: none"><li>Team member of the <a href="#">Students Underwater Robotics Association</a>.</li><li>Responsible for control software, electronics and automation.</li><li>PID control from inertial measurement.</li><li>Custom-built PCBs for power and sensors.</li><li>Responsible for ROV control during the competition.</li></ul>		
	<b>An Introduction to Interactive Programming in Python</b>	November 2014	
	<i>Rice University on Coursera, 100%</i>		
INTERESTS	Artificial Intelligence; machine learning; behavioural psychology; philosophy; chess; writing; algorithmic, mathematical thinking; and curiosity with a passion		

PROFESSIONAL	<b>Freelance writing</b> <i>as a hobby</i> <span style="float: right;"><i>2013 – 2014</i></span> <b>HostUS</b> <i>web-hosting services</i> <span style="float: right;"><i>2012</i></span> <i>Systems Administrator</i> <ul style="list-style-type: none"> <li>• Systems administration during the company’s genesis.</li> </ul>
FEATURED BLOG POSTS	<b>Human Behavioural Psychology and the Social Construct</b> <b>The Egocentric Predicament: The Bad and the Atrocious</b>
LINGUISTICS	<b>International English Language Testing System (IELTS)</b> <span style="float: right;"><i>November 2014</i></span> <i>Reading: 9.0 Listening: 9.0 Writing: 7.5 Speaking: 8.5 Overall: 8.5</i> <i>Others: Hindi; Malayalam; and Marathi</i>
LINKS	LinkedIn <i>shreyasvinod</i>
PERSONAL	Born <i>19<sup>th</sup> December, circa. 1997</i> Nationality <i>Indian</i>