

Jeremy Ku-Benjet

Email: jeremykubenjetschool@gmail.com

Education	
Cornell University	<i>Undergraduate, Computer Science, GPA: 3.882</i> Courses: Computer Architecture, Introduction to Compilers, Linear Algebra, Discrete Math, Multivariable Calculus, Object Oriented Programming, Functional Programming
Stuyvesant High School	Courses: Systems Level Programming, Computer Graphics, Complex Analysis, Math of Quantum Mechanics
Experience	
Teaching Assistant	Worked in a small team to design, implement, and test infrastructure to safely host over 300 students attacking vulnerable C programs Worked in small team to write an automated grading tool Staffed office hours and lab component of the course
Projects	
3D Rendering Engine	Implemented a 3D graphics engine supporting Phong and toon shading as well as animation based on a scripting language
Dynamic Wifi Extender	Investigated the feasibility of adjusting the signal strenght of an extender depending on the proximity to devices connected to reduce power usage. Implemented a demo on a Raspberry Pi.
Compiler	Implemented an optimizing compiler from scratch for a small imperative language targeting x86-64 assembly.
OCaml Autoexamples	A WIP PPX written to automatically generate examples for OCaml funtion documentation based on input generators.
Wordle Tool	Wrote a tool find optimal starting words and the maximum game length of a game of Wordle.
Proficiencies	
Languages	OCaml, Rust, C, C++, Java, Python, Assembly (x86-64 and RISC-V), Verilog, Lua, Bash
Tools	Dune, Cargo, Make, Maven, Unix Shell, Version Control (Git), Docker, Debuggers (GDB, LLDB)
Awards	
AIME	Qualification for American Invitational Mathematics Exam (top 5% of AMC 12 participants, 2022)
CUHSPC	1st Place at Cornell University High School Programming Contest 2022
Big Red Hacks	1st of 204 participants at Big Red Hacks 2022 (hackathon hosted at Cornell University)