Jeremy Ku-Benjet
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Education	
Cornell University	*Undergraduate, Computer Science, GPA: 3.8*
	Courses: Computer Architecture, Introduction to Compilers, Distributed Systems, Linear Algebra, Multivariable Calculus, Object Oriented Programming, Functional Programming
Stuyvesant High School	Courses: Systems Level Programming, Computer Graphics, Complex Analysis, Math of Quantum Mechanics

Experience	
Research Assistant, Capra (2022-2022)	Extended a tool for chaining together compiler invocations
	Improved its emmbeded language with more succinct syntax and nicer semantics
	Generalized compiler invocations to take multiple input and output files using methods from type directed program synthesis
Teaching Assistant, Cornell University (2023-2024)	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.
OCaml Autoexamples	Implemented a WIP PPX to automatically generate examples for OCaml function documentation based on input generators.

Proficiencies	
Languages	OCaml, Rust, C, C++, Java, Python, Assembly (x86-64 and RISC-V), Verilog, Lua, Bash
Tools	Dune, Cargo, Make, Ninja, Maven, Unix Shell, 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)