

Konstantin Howard

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EDUCATION

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- Princeton University**, Princeton, NJ June 2024
- Bachelor of Science in Engineering in Computer Science – Cumulative GPA: 3.8
 - Pursuing certificates in Russian, Eastern European, and Eurasian Studies (REEES) and Jazz Studies
 - Relevant Courses: COS 226 Algorithms and Data Structures, COS 217 Intro to Programming Systems, COS 324 Intro to Machine Learning, COS 316 System Design, COS 432 Information Security, fourth-year Russian
- Derzhavin Institute**, St. Petersburg, Russia Summer 2021
- Intensive second-year Russian virtual summer language course through Princeton in St. Petersburg program
 - Wintersession virtual minicourse (January 2022)
- The Hotchkiss School**, Lakeville, CT June 2020
- Cum Laude – Cumulative GPA: 10.7 (A- average on an unweighted 12-point scale)
 - Relevant courses: AP Calculus, AP Physics C, Discrete Mathematics, Calculus-Based Statistics, AP Computer Science

SKILLS & INTERESTS

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- **Skills:** UML design, technical literacy, Microsoft Office, Google Drive, manufacturing assembly; **Programming:** Java, C, C++, Python, Go, ARMv8, HTML, CSS; **Tools:** git, make, bash, gdb, Bootstrap, MagicDraw
 - **Language:** Advanced Russian

EXPERIENCE

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- EMTech Space**, Athens, Greece *Design and Development Intern* June-July 2022
- Learned operational simulator architecture and software design patterns by studying ESA standards and reverse-engineering UML models from C++ source code for REFASIM (generic spacecraft test build) Electric Pulse System
 - Developed simulator for Power Control and Distribution Unit subsystem of undisclosed spacecraft for testing: extracted software requirements from hardware document, designed system of models and interfaces using MagicDraw (UML), implemented design in C++, performed assembly tests
 - Authored Software Requirements Specification and technical report on my work, presenting to supervisors and CEO
- Princeton Computer Science Department**, *Course Assistant* September 2022-present
- Grade coding assignments and exams for COS126 Intro to Computer Science (Fall 2022)
 - TA for 226 Data Structures and Algorithms/217 Systems Programming: assist students with assignments and concepts
- Mendel Music Library**, *Circulation Assistant* September 2021-May 2022
- Ran circulation desk, assisted patrons, organized collection according to LC call numbers, performed independent projects
- Briartek Incorporated**, *Assembly Technician* June 2019-December 2020
- Manufactured man-overboard beacons, receivers, and direction finders contracting with US Navy and maritime industry
 - Technical work: Soldered, programmed, and tuned circuit boards; over-molded antennas and beacons
 - Lead independent production projects (Battery Back Ups)

PROJECTS

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- [Personal Website](#):** Ongoing effort to learn web development by creating my own website with HTML, CSS, and Bootstrap
- [Modeling the Perception of Similarity in Musical Chords](#):** Used Python to implement and test different models against real data
- [Adaptive Replacement Cache](#):** Implemented ARC algorithm in Go and analyzed performance with traces (simulated workloads)
- These and more can be found on my GitHub: <https://github.com/KonstantinHoward>

LEADERSHIP & ACTIVITIES

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- Princeton University** Fall 2020-present
- Alto Saxophone in small group ensemble and Creative Large Ensemble, Princeton Music Department (2020-23)
 - Volunteer saxophone instructor with Trenton Arts at Princeton; Ambassador for International Internship Program; Ambassador for One for the World Princeton Chapter
 - Panelist - presented two research papers at REEES Northeast Network 2022 Conference at Yale
- Boy Scouts of America, Troop 129** Spring 2013-Winter 2017
- Earned the highest rank of Eagle Scout, serving in various leadership positions including as Crew Leader at Philmont
 - Planned, organized, and led community service projects, camping trips, etc.
- The Hotchkiss School** Fall 2017-Spring 2020
- Maria Bissell Hotchkiss Scholarship Recipient
 - Faculty Prize (2020) – For seniors distinguished by their humility, kind-spiritedness and strength of character
 - Varsity Cross Country (5 years), Captain (2019)
 - Varsity Track and Field (3 years), Captain (2020)
 - Addressed/lobbied board of trustees to expand financial aid resources