

# Jacob Chvatal

<https://jacob.chvatal.com>  
chvatal.j@northeastern.edu | 503.330.8568

## EDUCATION

### NORTHEASTERN UNIVERSITY

#### BS IN COMPUTER SCIENCE

Expected May 2022 | Boston, MA  
Khoury College of Computer Sciences  
Dean's List (All Semesters)  
Cum. GPA: 3.92 / 4.0  
Major GPA: 3.94 / 4.0

### WESTVIEW HIGH SCHOOL

Grad. June 2018 | Portland, Oregon  
Nat AP Scholar | Nat. Merit Finalist

## LINKS

Github:// [jakechv](#)  
LinkedIn:// [jacob-chvatal](#)  
Twitter:// [@jakechvatal](#)

## COURSEWORK

### GRADUATE

Algorithms

### UNDERGRADUATE

Artificial Intelligence  
Computer Systems  
Theory of Computation  
Programming Languages  
Compilers

## SKILLS

### PROGRAMMING

Over 5000 lines:

Java • Shell • JavaScript • Haskell  
OCaml • Python • React

Over 1000 lines:

C • C++ • CSS • MySQL • Assembly

Familiar:

PostgreSQL • Android • SQLite •  $\text{\LaTeX}$

### TECHNOLOGIES

Experienced:

(Arch/Debian) Linux • Docker

Familiar:

NixOS • Plan9 • SQLite

### ENVIRONMENTS

Emacs • (Neo)Vim • Visual Studio Code  
• IntelliJ IDEA • tmux • Microsoft Suite  
• Adobe Suite

## EXPERIENCE

### SKIRA TECH | SOFTWARE ENGINEERING INTERN

Expected August 2020 – Dec 2020 | Stockholm, Sweden  
• Writing React code.

### INTEL CORPORATION | SOFTWARE ENGINEERING INTERN

May 2020 – August 2020 | Hillsboro, OR  
• Writing Python code.

### CDK GLOBAL | SOFTWARE DEVELOPMENT INTERN

June 2018 – Aug 2018 | Portland, OR  
• Led development of React & Spring Boot web app w/ Material UI components  
• Utilized Docker and nginx to containerize and host application through CDK  
• Practiced Agile/Scrum methodologies through Atlassian Jira, Confluence, Stash

### PORTLAND STATE UNIVERSITY | STUDENT INTERN

June 2017 – Aug 2017 | Portland, OR  
• Impl. C++ library to compress and apply linear algebra to sparse matrix data  
• Applied matrix operations to analyze and graph large 3D mesh structures  
• Distr. code to COEUS supercluster w/ OpenMP parallel programming pragmas

## RESEARCH

### NU SANDBOX | DEVELOPER AND PROJECT LEAD

May 2019 - Present | Boston, MA

## PROJECTS

### POO-NU HackHarvard

Assembled React Native application with Google Maps API, GraphQL and MySQL to help students locate the nearest bathroom on Northeastern's campus.

### DOTFILES Linux

Always iterating on a custom system configuration for my Arch Linux system. Involves substantial work with shell scripting, VimScript and Emacs Lisp.

### COURSEWORK Northeastern

I've worked on lots of school projects – including several games in ISL/Java, a shell and FUSE-based file system in C, a quiz sharing application with Python's Flask and SQL, interpreters for many toy languages in Haskell, and a substantial compiler for a typed functional programming language in OCaml.

*Code for these projects is available upon request as per Northeastern policy.*

## OTHER EMPLOYMENT

### NORTHEASTERN UNIVERSITY | CS 'FUNDIES' 1 AND 2 TUTOR

Jan 2019 - May 2020 | Boston, MA

Taught introductory functional programming concepts, data structures and OOP paradigms in Racket's ISL and Java with advanced content.

- Held office hours and weekly lab sessions for assignments and concepts.
- Evaluated homework for students weekly for form and function of programs.