

Jacob Chvatal

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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 • \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
- Distributed C++ code to PSU's COEUS Cluster with 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.

PHILOSOFIND: QUIZ SHARING Northeastern

Devised quiz sharing application for course with Python's Flask, Jinja2 templating engine, SQLite and Amazon Web Services' EC2.

DOTFILES Arch 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, 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 | FUNDAMENTALS OF CS 1 AND 2 TUTOR

Jan 2019 - May 2020 | Boston, MA

- Tutored accelerated sections of both courses in which students learned advanced concepts after finishing the core class curriculum.
- Held office hours and weekly lab sessions to assist students with assignments and course concepts.
- Evaluate homework for students weekly, providing feedback and guidance for form and function of programs.
- Teach introductory functional programming concepts, data structures and OOP paradigms in Racket's ISL and Java.