

# Patrick Crowe

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## EDUCATION Bachelor's of Science in Computer Science

*Illinois Institute of Technology, Chicago IL | Dean's List 2019, 2020, Spring 2021*

Expected: May 2022

GPA: 3.9

## EMPLOYMENT

### Argonne National Lab, Research Aide, Lisle IL

June 2020-Present

- Creates and implements stories in an Agile environment under a 2-week sprint deadline
- Researches and works in Drupal for a team of 7 developers to update the public and private website
- Demoed PHP code at group meetings after pushing to Gitlab and writing Behat/Cucumber tests

### Capri of Downers Grove, Host/Busboy, Downers Grove IL

May 2019-Aug 2019

- Scheduled reservations for up to 50 parties at a time, restaurant capacity at 200 people indoors and outdoors
- Welcomed on average 20 guests per hour in a friendly and helpful manner while seating them in under 1 minute
- Managed dining room and reset tables in under 2 minutes for guests to quickly be seated

### That Burger Joint/Oberweis, Kitchen Worker/Cashier, Downers Grove IL

May 2018-Jan 2019

- Politely took orders and served customers in under 7 minutes, cleaned kitchen and dining room
- Collaborated well in a team of 5 or less under pressure

## EXPERIENCE

### Node Tracer (*Independent*)

- Designing software to catalogue a network of nodes in a breadth-first search while blacklisting certain nodes, like previously visited nodes

### Time Capsule (*Independent*)

- Capturing memories through photos linked with QR codes in a chain of software that ought to work independent of original OS

### Remote Control Telescope

- Leading team in designing an interface to control any telescope from a remote location without fear of damaging equipment
- Leveraging code previously written by university students while introducing all students to an Agile environment

### Cybersecurity Research

- Identifying regions of vulnerability in modern systems through research paper studies and individually conducted research

### Mobile Application Development

- Rapidly developing mobile applications by leveraging frameworks and APIs provided by the Android development platform

### Programming Languages and Translators

- Experimented with theory behind functional programming languages and developed working translator and compiler for original language

### Operating Systems

- Compiled low-level scripts with parallelization, virtualization, system calls, caching, and memory hierarchy to optimize system processes

### Intro to Information Security

- Acquired running knowledge of common network attacks and methods of prevention.

### Database Organization

- Implemented database of 8 interrelated tables into car-parking app with team of 3. Offers full CRUD options, several layers of permissions, secure storage of personal data, and errorless transactional operations

### Intermediate Software Development

- Developed a service desk ticketing system that interfaced with SQL database and offered CRUD functionality

### Fundamentals of Web Design

- Constructed professional website with CSS and JavaScript in GitHub for displaying images and video in a styled and dynamic environment

### Advanced Introduction to Computer Science

- Built CTA mapping software with Java in Eclipse and GitHub for determining fastest route of travel
- Imported data from .csv file while offering the ability to delete from and write back to the file within the program

### Scalable JSON Database (*Independent*)

- Coded database of JSON objects that display in a tree diagram dynamically to make their connections more visible and to support growth

### Online Courses (*Independent*): CompTIA A+, CompTIA Linux+, CompTIA Network+

- Gathered foundational knowledge on basic computer concepts for PC building, computer networking, and hardware/software security.

## ACTIVITIES

### Cyber Security, Cyber Hawks

- Studying computer security with virtual machines in preparation for contest. Analyzed log files, and Wireshark packets.

### Music, Album Appreciation Group

- Meeting weekly with adults in the Chicago area to listen to good/new/historical music and to share our perspectives

## SKILLS

*Code:* Bash, Java, Python, C#, C, C++, HTML, CSS, JavaScript, JSON, SQL, OCaml, Cucumber, PHP, XML, Swift, MATLAB

*Environment:* Git, Linux/Windows/Mac, XCode, Android Studio, Visual Studio, Docker, Drupal framework, Service Now, JetBrains