

# Noah Koontz

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## EDUCATION

**OREGON STATE UNIVERSITY**  
BS IN COMPUTER ENGINEERING  
Expected June 2022 | Corvallis, OR  
GPA 3.9, Honor Roll  
HKN Sophomore of the Year

## LINKS

Website: [prototypical.pro](https://prototypical.pro)  
GitHub: [prototypicalpro](https://github.com/prototypicalpro)  
LinkedIn: [prototypicalpro](https://www.linkedin.com/company/prototypicalpro)

## COURSEWORK

Operating Systems  
Assembly Language  
Data Structures  
Digital Logic Design  
Technical Writing

## SKILLS

### Languages - AWS

CloudFormation, C, C++99,  
C++11, CSS, Java, JavaScript,  
L<sup>A</sup>T<sub>E</sub>X, Markdown, Python, Rust,  
Shell, SQL, TypeScript.

**Platforms** - ARM, AVR, AWS,  
Azure, CMake, Docker, EagleCAD,  
GitHub Actions, GTest, Linux,  
MongoDB, Node.JS, OpenCV,  
PlatformIO, React.js, TravisCI.

**Concepts** - Agile development,  
build automation, conflict  
resolution, embedded systems,  
infrastructure as code (IaC), IoT  
security (mTLS and PKI), public  
speaking, serverless architecture,  
technical communication, unit  
testing.

## AWARDS

**Sophomore of the Year**, OSU  
IEEE Eta Kappa Nu  
**Fastest Execution**, ECE375  
**Execution Award**, HWeekend  
**Most Market-Ready**, HWeekend

## EXPERIENCE

### NEW RELIC | OPEN SOURCE SOFTWARE DEVELOPER

Jun 2020 - Present | Portland, OR  
Refactored **Repolinter** (a tool to audit Open Source community files) adding generation of actionable GitHub issues for project maintainers. Created and deployed **repolinter-action** to 50+ public GitHub repositories in New Relic. Deployment resulted in 100+ compliance issues fixed (Shell, TypeScript).

### OPEN SENSING LAB | EMBEDDED SOFTWARE DEVELOPER

Jan 2019 - Present | Corvallis, OR  
Develop software for environmental sensing on embedded systems, providing low-cost, non-technical solutions for researchers. Projects include:

- **SlideSentinel - Developer** Designed fault recovery tools for SlideSentinel, a low-cost landslide monitoring system. Greatly increased mean time between maintenance (C, C++, Python).
- **FeatherFault - Lead** Built FeatherFault, a failure recovery tool for embedded systems; deployed in 3 OPEnS projects (C, C++, Python).
- **SSLClient - Lead** Created SSLClient, a TLS library to simplify secure IoT communication; providing mTLS support for 5 OPEnS projects (C, C++).
- **Spool - Network Specialist** Designed PKI and authentication for Spool, an accessible IoT backend; collected and visualized data for deployed OPEnS projects (C++, JavaScript).
- **Loom - Network Specialist** Developed core network features for Loom, a rapid prototyping platform for environmental sensing. Presented Loom at American Geophysical Union conference (C, C++).

### THERMO FISHER SCIENTIFIC | WEB DEVELOPMENT CONTRACTOR

Aug 2018 | Hillsboro, OR  
Managed migration of 30+ internal SharePoint sites to SharePoint Online cloud services.

### SHOEBIO | CLOUD ARCHITECT CONTRACTOR

Jul 2018 | Portland, OR  
Rebuilt API for consumer website utilizing serverless architecture on AWS to reduce operating costs by half. Led team of three developers (AWS CloudFormation, JavaScript, SQL, TypeScript).

## EXTRACURRICULARS

### CDK PIXEL TRACKER | SOFTWARE DEVELOPER

Aug 2020 | Portland, OR  
Deployed custom tracking beacon infrastructure using AWS CDK and serverless technology (AWS CloudFormation, TypeScript).

### SPROUT | SOFTWARE DEVELOPER

Mar 2019 | Corvallis, OR  
Built an IoT plant monitoring system. Leveraged Azure for serverless database infrastructure and industry-grade IoT security. Proved reliability with 6-month field test (C, TypeScript).

### HWEEKEND HACKATHON | SOFTWARE DEVELOPER

Jan 2019 | Corvallis, OR  
Designed and built a IoT voice-activated spice rack. Integrated AWS IoT for secure communication. Led multidisciplinary team of four. (C++, TypeScript).