William M. Temple II

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EXPERIENCE

Laboratory for Playful Computation

Development Lead and Research Assistant, *University of Colorado Boulder* (August 2017–May 2019)

- Responsible for design, architecture, and technical direction of BlockyTalky 3
  - Developed a complex full-stack system for young students (middle school) to program a Raspberry Pi, including a blocks-based editor, runtime, and instrumentation software using TypeScript
  - Conducted qualitative research on the project's usability
  - Leveraged existing open-source technology to rapidly deliver field-testable prototypes
- Managed a team of two other developers as project lead
- Implemented and administered laboratory deployment systems

Microsoft

Software Engineering Intern (May 2017–August 2017)

- Created internal tooling for the Bing Rich Ads division to locate errors in ad data
- Developed a web system to interactively query a petabyte-scale database

redhat

Software Engineering Intern (May 2016–August 2016; May 2017–August 2017)

- Atomic/OpenShift container security team
- Developed utilities for managing Docker containers in highly-available PaaS environments
- Created a tool for mounting docker containers and images on the host system
- Created a service daemon for monitoring changes to docker images and automatically expanding them

SKILLS

Languages

- **JavaScript (ES6+)**
- **TypeScript**
- C (Linux/Unix)
- Rust
- C#
- Golang
- Python

Advanced Skills

- **Web Development**
- **Compilers & Runtimes**
- User-Centered Design
- Data Visualization (D3)
- Cryptography
- Kernel Development
- Graph/Network Analysis

Technologies

- **React**, Vue
- **Docker** & Kubernetes
- PaaS (Azure, OpenShift)
- Redux, MobX
- WebAssembly
- .NET Core (ASP)
- GraphQL (Apollo)

Methods & Concepts

- Agile Development
- Scrum & Kanban
- Functional Programming
- Test-Driven Development
- Pair Programming
- Qualitative Research

EDUCATION

WPI

Worcester Polytechnic Institute; Worcester, MA

B.Sc. *with High Distinction* (3.8 GPA), Computer Science, May 2017
Activities and Honors: President, UPE (computing honor society); Senior Assistant Award (2017)

University of Colorado Boulder

University of Colorado Boulder; Boulder, CO

M.Sc. equivalent (incomplete PhD, 3.5 GPA), Computer Science
22 credit-hours of graduate coursework and doctors-level independent study

PROJECTS

Serendipity, *Summer 2019*

A unique hybrid programming language, compiler, runtime, and visual editor, built from the ground-up using React and TypeScript.

PeerReviewWeb, *January 2018*

A C# ASP.NET Core web application for conducting peer reviews among students. Deployed in a live course at the University of Colorado.

Synthepyz, November 2017

Experimental program synthesis tool. Generates assembly-language fragments from input-output test cases alone.