

THOMAS WILDENHAIN

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EDUCATION

Carnegie Mellon University, Pittsburgh, PA

Bachelor of Science, Computer Science. May 2020

QPA: 4.0 • Dean's List all semesters

Relevant Courses:

Algorithm Design and Analysis	Undergraduate Complexity Theory	Great Theoretical Ideas in CS
Parallel and Sequential Data Structures and Algorithms	Competition Programming	More Great Ideas in Theoretical CS
Intro to Computer Systems	Principles of Real Analysis	Principles of Functional Programming
	Algebraic Structures	Principles of Imperative Programming

Bishop Canevin High School, Pittsburgh, PA

Honors: Class of 2016 Valedictorian • National Honor Society President

EXPERIENCE

Dropbox Software Engineering Intern

(May 2018 – August 2018)

- Developed a highly-requested improvement to the iOS Dropbox Camera Uploads feature
- Wrote C++ logic and frontend Swift/Objective C code
- Learned model-view-viewmodel (MVVM) style for frontend development
- Wrote tests for subtle concurrency bugs

Teaching Assistant, 15-251 Great Theoretical Ideas in Computer Science

(August 2017 – May 2018)

- Lead recitations and held office hours to help students understand theoretical CS concepts
- Created rubrics for exam questions and graded student proofs
- Devoted ~18 hours per week to TA-related commitments

JavaScript Developer and Robotics Tutorial Writer, BirdBrain Technologies

(June 2015 – August 2017)

- Designed, prototyped, and developed a web application to program robotics kits
- Created a user-friendly, block-based programming interface
- Launched the BirdBlox app within a year of starting the project
- Wrote documentation and met with future developers

PROJECTS

Recitation Scheduling Software

(August 2017)

- Uses the maximum flow matching algorithm to match students and TAs to recitation times
- Provides an interface for visualizing student preferences and available times

Teach Tiles, HackCMU team of 3

(September 2016)

- Augmented reality teaching app prototyped for 2016 HackCMU competition
- Won award for best approach to security or education, presented by DUO

Portal Gun Augmented Reality App

(June 2016 – August 2016)

- Developed an AR app for an elaborate scavenger hunt based on Valve's Portal 2 game
- Video: <http://tomwildenhain.com/projects.html#portalgunar>

ACTIVITIES

CMU Puzzlehunt Co-President and Puzzle Author

(August 2016 – present)

- Lead weekly meetings and write puzzles for our bi-annual event that attracts ~130 participants

ScottyLabs

(August 2016 – present)

- Developed an Android app using our Print API to enable students to print from their phones
- Gave talks on Web Development and Augmented Reality

Plaid Parliament of Pwning, Capture the Flag (CTF) team

(August 2016 – present)

- 13/72 on member leaderboard

SKILLS: Python, Swift, JavaScript, Java, C#, Unity, SML, C, PowerPoint Turing Machines