

# NIELS RASMUSSEN

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**University of Pennsylvania** — School of Engineering and Applied Science

Philadelphia, PA

Bachelor of Science in Engineering in Computer Science & Physics

GPA: 3.63/4.00 | Expected 2021

- **Minors:** Mathematics and Data Science.
  - **Relevant courses:** Applied Machine Learning, Software Engineering, Scalable & Cloud Computing, Data Structures & Algorithms, Discrete Math in Computer Science, Database & Info Systems, Computer Design, Analytical Mechanics, Quantum Mechanics, Linear Algebra, Partial Differential Equations, Managerial Economics, Business Statistics.
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## WORK EXPERIENCE

### Software Engineering Intern

(remote) Sunnyvale, CA

Google

May 2020 - August 2020

- Developed UI components for a new Autocomplete feature in the Angular Component Dev Kit (CDK).
- Built experimental Listbox and Option directives that handle mouse and keyboard interactions, selection state management, and aria accessibility. Demo at <<https://nielsr98.github.io/google-demo/>> best viewed on desktop.
- Ran performance benchmark testing of multiple implementations of the Listbox to decide on which method to use.
- Contributed to the main GitHub repository within 2 weeks. Wrote end to end tests using the Jasmine test framework.
- Learned to meet Google internal standards of writing comprehensive design documents prior to feature implementation.

### Software Engineering & Product Management Intern

Philadelphia, PA

Viora Health

June 2019 - January 2020

- Built Viora's new web app with Angular 8 in a team of 3 engineers. Used an Agile workflow with weekly sprints.
- Worked closely with test cohorts in weekly meetings to generate feature ideas and determine stress points in the UX.
- Learned Angular web development from scratch, and deployed a live first version within 10 days.
- Built Typescript model to manage user profiles and a Parse database. Designed the database through Back4App.

### Nanotech Research Fellow

Philadelphia, PA

University of Pennsylvania

June - August 2018

- Researched materials science and the synthesis of monolayer (single atom thick) chips for nanopore applications.
  - Analyzed the results of synthesis procedures and studied field literature on increasing the size of the chips.
  - Began redesigning the existing procedure within 2 weeks, ultimately increasing chip size by more than 100%.
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## CODING PROFICIENCY & PROJECTS

- Java & Eclipse: highly proficient; 5 years experience
- Typescript, HTML, CSS: highly proficient; experienced in web development via the **Angular** framework.
- Swift & Xcode: developed iOS apps during internships
- SQL, MongoDB, Neo4j, NoSQL: proficient; skilled in querying and designing large databases.
- Python: used for machine learning class projects.
- C: proficient; building custom shell and OS using C.

LFGG (team of 3): Built Android and Angular "looking for good games" apps with a MongoDB database that lets users match with teammates in a desired video game. Worked on the full stack of the web app and designed the UI/UX.

Pennbook (team of 3): Built a web app with Facebook style profiles hosted on AWS EC2. Used **Hadoop MapReduce** to implement a friend recommendation module based on social rank. Used **D3.js** to visualize user's friend networks.

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## LEADERSHIP & ACTIVITIES

### Penn Benjamins Peer Counselor

October 2018 - Present

- Help peers gain insight into issues they are struggling with, define goals, make action plans.

### PennApps Outreach Representative

March 2019 - August 2020

- Reviewed over 300 applications and made decisions about admittance to PennApps. Helped run the hackathon itself.

### Operations Captain: Penn Aerospace Club

January 2018 - August 2020

- Managed a team of a dozen people and a budget of nearly \$20,000. More than doubled the budget as captain.
  - Organized speaker events and promo-web activity. Secured aerospace grants.
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**SKILLS:** Danish (spoken) | Microsoft Office | Slack/Trello | data analysis | verbal presentations | formal report writing

**INTERESTS:** tennis | Penn badminton team | streaming on Twitch | MUSE Social Impact | Sigma Nu fraternity